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# Monthly Labor Review

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MAY 1949 VOL. 68 NO.

5

**Work Stoppages During 1948**

**Employment and Unemployment of Radio Artists**

**Labor Share in Construction Cost of New Houses**

**Labor Utilization Patterns on Selected Housing Projects**

**UNITED STATES DEPARTMENT OF LABOR**

**BUREAU OF LABOR STATISTICS**

# UNITED STATES DEPARTMENT OF LABOR

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# Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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LAWRENCE R. KLEIN, *Chief, Office of Publications*

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## This Issue in Brief...

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SUCCESS AND FAILURE in the settlement of labor-management disputes are analyzed in a representative group of articles in this issue. CASE STUDIES IN INDUSTRIAL PEACE: MEN'S CLOTHING INDUSTRY (p. 542) is the fourth such case study made by the National Planning Association. It reviews the relations between the Amalgamated Clothing Workers of America (CIO) and the Hickey-Freeman Co. and attributes company-worker harmony to management's acceptance of collective bargaining and to the union's acceptance of responsibility. In the Twentieth Century Fund Study—BASES FOR UNDERSTANDING BETWEEN LABOR AND MANAGEMENT (p. 539)—the divergent and mutual goals of management and labor are enumerated and bases for employer-employee understanding are set forth.

Operations under the newly adopted public technique of inquiry into disputes that threaten the national health and safety are discussed in a chronology—WORK OF EMERGENCY BOARDS OF INQUIRY IN 1948 (p. 532). Step-by-step progress is traced in the industries for which the President appointed such boards under the national emergency provisions of the Taft-Hartley Act. This statement affords an opportunity to measure in retrospect the effectiveness of the participating individuals and groups concerned in bringing about settlement of differences. In 4 of the 7 emergency-board disputes, work stoppages occurred. These 4 strikes were among the 20 that involved 10,000 or more workers during 1948 and which are covered in WORK STOPPAGES DURING 1948 beginning on page 505. The latter shows that the numbers of strikes, workers involved, and man-days of idleness involved were at lower levels in 1948 than in 1947. The authors refer to the difficulties in exactly fixing the reasons for upward and downward movements in industrial strife.

INJURY RATES IN MANUFACTURING: FOURTH QUARTER, 1948 (p. 526) reports a heartening drop

in the work injuries frequency rate, to the lowest level in the 6 years for which quarterly data are available. The decline occurred, notwithstanding a slight rise in employment from previous quarters. Country-wide emphasis placed upon accident prevention is shown in the proceedings of THE PRESIDENT'S INDUSTRIAL SAFETY CONFERENCE (p. 529). The Conference decided upon a program of "action now."

The need for more housing and better as well as cheaper construction makes for interest in an analysis and explanation of the labor factor in the building of dwellings. Two articles in this issue touch upon workers engaged in housing construction. LABOR SHARE IN CONSTRUCTION COST OF NEW HOUSES (p. 517) discloses that site pay roll accounted for about a third of total cost of new housing built during 1946-47 in 18 industrial areas and that the proportion was practically the same in 1931-32. Pay rolls formed a larger proportion of total cost in the low-cost projects, and tended downward as the average construction cost rose. In LABOR UTILIZATION PATTERNS ON SELECTED HOUSING PROJECTS (p. 521), the peaks and troughs of labor utilization during the entire period of construction are described. On 109 single-unit projects built in 1946-47, one-half of the total man-hour construction requirements were worked on the average during the first 10 weeks after construction began and a sharp peak in labor input was reached during the fifth week. For 1,396 houses in projects of 25 or more units, the half-way mark in total labor input was reached about the thirty-fourth week and the level of utilization was fairly evenly sustained beginning in the seventeenth week of construction and continuing until the house neared completion.

When national employment was at an all-time peak, some groups had unemployment problems. Radio actors and, to a lesser extent, radio singers are in the latter category. EMPLOYMENT AND UNEMPLOYMENT OF RADIO ARTISTS (p. 514), based on the experience of these performers in 15 major centers, shows that in the survey week during the spring of 1948 over a fourth of the actors and nearly a sixth of the singers were totally without work. Radio artists are often free lances, and irregularity of employment is associated with this status.



# The Labor Month In Review

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THE GRADUAL DOWNWARD ADJUSTMENTS of recent months in the level of business activity continued during April 1949 with little indication either of an immediate reversal in trend or any serious deterioration in the general economic situation. Unemployment was slightly lower, but employment in industrial activities other than construction declined further in the month. Industrial production was smaller in the aggregate. The decline in wholesale prices became more widespread, although decreases were still for the most part not large. Changes in consumers' prices were minor. The month-to-month changes in all of the economic indicators were small and the net change from a year ago—in employment, production, and prices—were in most cases slight.

Prior to the strike at the Ford River Rouge plant on May 5, work stoppages were relatively insignificant during the period. While unions and management in the basic industries were preparing for contract negotiations, wage agreements continuing present rates or providing for some increases or fringe benefits were being reported by smaller employers. The United States Supreme Court refused to review a Circuit Court decision upholding the rights of unions to include pensions within the scope of collective bargaining.

## Employment Changes

Total employment increased slightly between March and April to 57.8 million, according to Census Bureau estimates, largely as a result of seasonal expansion of agricultural and other outdoor employment. Agricultural employment rose 400,000 to 7.8 million. For the past few months, farm employment has been running moderately higher than in the same period of last year. Non-agricultural employment, on the other hand, decreased by a quarter of a million between March and April. Nonfarm employment at 50 million in April was about 900,000 below that of April a year ago.

The number of unemployed declined slightly in April, primarily for seasonal reasons. The total

of 3.0 million unemployed was 150,000 less than in the month before, but 800,000 greater than in April of last year. The decline in total unemployment over the month was entirely among men—a drop of 200,000; the number of unemployed women, on the other hand, increased somewhat, as it often does at this time of the year.

A larger number of the unemployed appear to be out of work for longer periods than has been true in the past. About 600,000 people in April had been out of work for 4 months or longer, compared with 300,000 last January and 400,000 in April a year ago.

## New Wage Contracts

Wage increases negotiated in a large number of settlements in recent months appear to be smaller than those of last year and a larger number of contracts have been renewed without change. Increasing emphasis appears to be placed on fringe benefits.

Uncertainty about the outcome of pending wage negotiations in some of the basic industries—coal, steel, automobiles, electrical equipment—appears to have influenced some recently negotiated agreements covering smaller groups of workers in related fields. Such agreements have included wage reopening clauses which can be exercised before the end of the year.

The length of the average workweek in manufacturing declined by half an hour between February and March to 38.9 hours, the lowest level of the postwar period. Weekly hours worked have been gradually reduced since a year ago and in March 1949 they were one and a half less than in March 1948.

In the durable-goods group of industries, the reduction in hours reflected some slackening in operations and readjustment to lower levels of output. Reductions were reported by plants in the iron and steel, machinery, nonferrous metals, and automobile groups, the latter as a result of work stoppages in supplier plants. In the soft-goods industries, a continuation of reduced demand and cautious forward buying on the part of apparel manufacturers and other consumers of textile mill products were reflected in the drop in weekly hours for textile establishments.

The shorter workweek largely accounted for a decrease of about \$1, in average weekly earnings, to \$53.37. Gross hourly earnings also moved



downward over the month by about 0.5 cent to \$1.37, largely because of reductions in overtime premium payments.

### Pension Plans

Union demands for health, welfare, and retirement programs appear to be increasingly important in collective bargaining. An assurance that these could be subjects for contract negotiation if unions desired was given by the Supreme Court in the Inland Steel case during April. The Court decided that it would not review the order of the lower court sustaining a National Labor Relations Board order that the Inland Steel Corp. bargain with the United Steelworkers (CIO) on a proposed pension plan.

Specific pension proposals will be important parts of union demands when negotiations in coal, steel, and automobiles are entered into in the next few months. The policy committee of the United Mine Workers, which met in Washington on April 25, was reported to have included an increase in royalties to provide increased pension payments for retired miners as one of the demands for the new contract to be made on the coal operators. The Steelworkers' wage committee also included in their "package" demand a broad program of employer-financed social insurance, including pensions. The United Auto Workers (CIO) likewise indicated that it will request substantial pensions to be financed by employers.

After rising sharply to 3.6 million man-days in March, because of the 2-week coal mining "holiday," time lost due to work stoppages fell to about 1.5 million man-days during April. No strikes of country-wide prominence took place during the month, but about 65,000 workers at the Ford River Rouge plant began a strike at noon on May 5. The strike resulted from an alleged speed-up in assembly line operations at the plant and had the approval of the executive board of the UAW-CIO.

The three-man commission appointed by President Truman to study the problem of labor-management relations in Government-owned, but privately operated, atomic energy plants, submitted its report on April 18. The commission recommended a labor relations panel for final adjustment of disputes, but placed great emphasis on the settlement of all disputes by voluntary collective-bargaining procedures "initiated at the local level and carried, if necessary, to the highest levels of management and labor." Management

and labor should make every endeavor to "determine bargaining units and representatives by agreement and consent election in preference to contested proceedings before the National Labor Relations Board." The Atomic Energy Commission must have "absolute and final authority" on all matters of security and such matters may not be considered proper for collective bargaining.

No final action on labor legislation was taken by Congress during the month. In early May the Administration's attempt to repeal the Taft-Hartley Act came close to defeat when a coalition of Republican and Southern Democratic Representatives almost succeeded in passing the Wood bill, a labor relations measure which retained most of the features of the Taft-Hartley law. After preliminary passage of the bill, 217 to 203, and before a final vote could be taken, a motion to send the bill back to the committee for further study was passed by a narrow margin, 212 to 209.

### Wholesale Prices Down

The general movement of prices at the wholesale level of distribution differed somewhat from that at the retail level during April. The down-trend in wholesale prices was quite widespread but there appeared to be no very significant changes in consumers' prices.

The wholesale price index for April averaged about 1 percent less than that of March, all groups except foods being lower. Food prices for the month as a whole averaged about the same as in March. Particular weakness was noted in metals and metal products, both ferrous and nonferrous. Significant reductions were also made in the prices of some textile products.

After declining for five consecutive months the Bureau of Labor Statistics consumers' price index rose 0.3 percent between February 15 and March 15, 1949. The increase was the result of higher average retail prices for foods, miscellaneous goods and services, and rents. Apparel and house-furnishings prices continued to decline. The index was 169.5 percent of the 1935-39 average on March 15, 1.6 percent higher than March 1948, but nearly 3 percent below the postwar peak reached in August and September 1948.

Retail food prices, which had been declining since July 15, 1948, advanced 1.0 percent from mid-February to mid-March. The most important factors in the rise were larger than seasonal advances in prices of beef, fresh pork, and lamb.

# Work Stoppages During 1948

Trends in Labor-Management Disputes,  
Major Strikes and Issues Involved,  
Industries and Unions Affected by Stoppages

DON Q. CROWTHER AND ANN J. HERLIHY<sup>1</sup>

NO SIGNIFICANT CHANGE occurred in the general level of strike activity in 1948. As compared with the preceding year, the number of work stoppages (3,419) declined about 7 percent. Approximately 1,960,000 workers were involved in stoppages, with a recorded idleness of 34,100,000 man-days. These totals were slightly less than the corresponding totals for 1947.<sup>2</sup>

As in other recent years, wages and related fringe benefits were a major controversial issue and accounted for more than half of the stoppages. Union representation rights, the union shop and hiring hall, and allied issues, some stemming directly or indirectly from application of various provisions of the Labor Management Relations Act, featured other controversies.

Average duration of stoppages declined to 21.8 calendar days in 1948, from 25.6 calendar days in 1947.

## Trend Comparisons

Trend comparisons in strike statistics are difficult: no two periods are strictly comparable, because of the complex and changing factors that

shape the course of labor-management relations. A host of economic forces—production trends, profits, prices, and worker purchasing power, to cite but a few—are at work upon an even more unpredictable human element. Strong convictions, bitter prejudices, and sudden bursts of temper occasionally outweigh economic realities. Also present are the influences of Federal and State governmental policies as interpreted by administrative agencies and by courts.

Comparison of trends following World War II with those after World War I showed generally similar tendencies—first a marked rise, followed by sharp declines as pent-up wartime tensions and emotions subsided. By the end of 1948, labor and management had had more than 3 years in which to readjust to peacetime conditions of production and industrial relations. As in the period following World War I, the number of strikes in the third postwar year (1948) was about a third below the immediate postwar peak. The number of workers involved and the time lost, as in the former period, had declined still further.

Over the 18-month period—July 1947 to December 1948—during which the Labor Management Relations (Taft-Hartley) Act has been in effect, strike activity averaged substantially less than in the period immediately following VJ-day. It averaged higher than in the more normal prewar period of 1935–39, however, in terms of number of strikes, number of workers involved, and time lost. (See chart 2, p. 509.)

<sup>1</sup> Of the Bureau's Division of Industrial Relations.

A more detailed summary of 1948 data will appear in a subsequent bulletin.

<sup>2</sup> All known work stoppages arising out of labor-management disputes, involving six or more workers, and continuing as long as a full day or shift, are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.



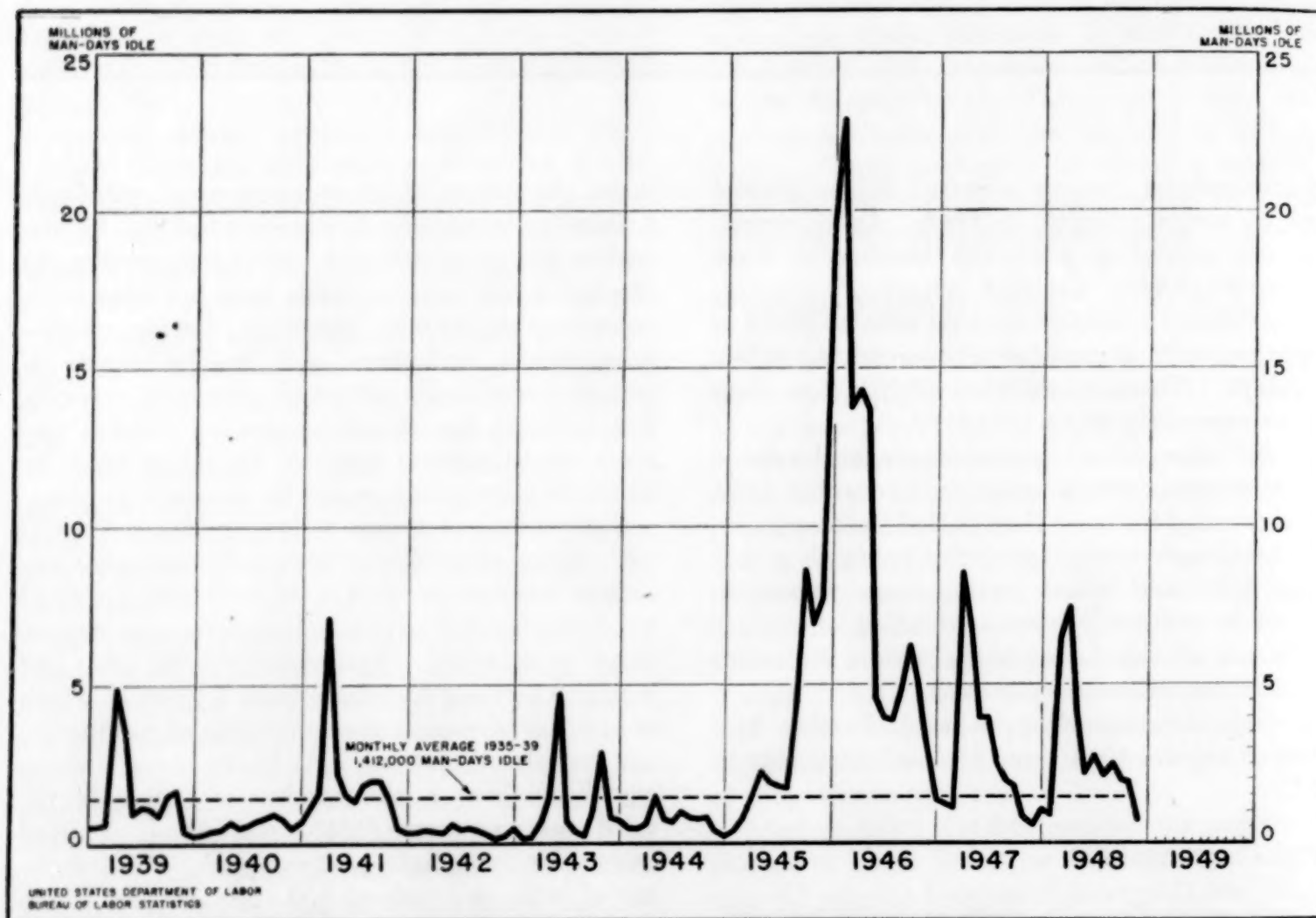
## Review of the Year

Employment reached record levels in 1948. Workers' money wages were high, as were employers' profits. Under these circumstances some employers quickly reached agreement with their workers' representatives rather than risk interruptions of output during a seller's market. Others advocated a withholding of wage increases accompanied by modest price reductions as a means of

checking inflation. Among the unions, long-term contractual commitments, no-strike clauses, and apprehension over incurring financial suits or strains on the union treasury served as strike deterrents.

No statistical process can fully and accurately interpret or record these involved motives—some simple in character, others intricate. The play of forces at times brought the parties together, and at other times put them at loggerheads. For

Chart 1. Idleness Due to Work Stoppages



example, the General Motors Corp. and the United Automobile, Aircraft and Agricultural Workers (CIO) on the brink of a strike reached a settlement; concurrently, the same union and the Chrysler Corp. failed to agree, causing the plants to be idle for over 2 weeks. A dispute over administration of a pension fund in the bituminous-coal industry caused a 40-day stoppage; 2 months later the commercial operators and the United Mine Workers (Ind.) reached an agree-

ment on a new contract without any suspension of work. But the management of the so-called "captive" mines would not accept the same terms with regard to the union shop, and a strike ensued. Thousands of packinghouse workers returned to their jobs after a strike of over 2 months, accepting a wage increase no greater than the amount offered before the walk-out began.

Injunctions and cooling-off periods, prescribed by the Labor Management Relations Act, failed



to stem stoppages in maritime and longshore services, but helped to avert an interruption of work in the atomic energy dispute, which was finally settled through negotiation.<sup>3</sup> Some strikes arose because of management's alleged refusal to bargain with union officials who did not sign the non-Communist affidavits required by law. At various plants such as the Univis Lens Co. in Dayton, Ohio, violence flared as the workers, members of a noncomplying union—the United Electrical, Radio, and Machine Workers (CIO)—sought to negotiate. But in other situations, the union rank and file shifted their affiliation when negotiations were stalemated by refusal of their leaders to sign the affidavits.

Still other stoppages—as in the printing industry—revolved about the preservation of union shop conditions built up over a long period of years. In a relatively few instances, as in other recent years, competition between unions for jurisdiction over a job to be done, or for the right to represent a group of workers, found the employer in the position of affected bystander.

Most labor-management negotiations in 1948, as in preceding years, were concluded without work stoppages. Although complete statistics are not available, it is currently estimated that over 100,000 collective agreements are in effect. Most of these are renegotiated, or reopened, annually.

Many large groups of workers and their employers came to peaceful settlements during 1948. Steel workers, observing their contractual no-strike pledge, first reluctantly accepted a continuance of their existing wage scales, but later obtained, by negotiation, an increase averaging about 13 cents an hour. Several hundred thousand railroad workers, without the almost customary intervention of Government mediation or fact-finding processes, bargained with representatives of the Nation's carriers and secured an upward adjustment of 10 cents an hour. The same process of bargaining and compromise was successfully followed by countless other employers and unions—large and small—throughout the country.

In many other instances, State and Federal conciliation services aided in adjusting controversies. For example, the Federal Mediation and Conciliation Service handled and helped to resolve 6,832 disputes in 1948. Of this number, 1,077

cases involved work stoppages and 5,755 were controversies or threatened strikes which were settled before actual stoppages developed.

Direct idleness at sites of the plants or establishments involved in strikes amounted to less than 0.4 percent of total working time in American industry during 1948.

A total of 20 stoppages began in 1948, in which 10,000 or more workers were involved. By contrast, a total of 15 such stoppages were recorded in 1947. Approximately 870,000 workers were directly affected in the 20 large stoppages and accounted for 44.5 percent of all workers involved in stoppages during 1948. Idleness resulting from the large stoppages aggregated 18,900,000 man-days in 1948, as compared with about 17,700,000 man-days in 1947.

TABLE 1.—Work stoppages involving 10,000 or more workers, in selected periods

Period	Stoppages involving 10,000 or more workers					
	Number	Percent of total for period	Workers involved		Man-days idle	
			Number	Percent of total for period	Number	Percent of total for period
1935-39 average	11	0.4	365,000	32.4	5,290,000	31.2
1941	29	.7	1,070,000	45.3	9,340,000	40.5
1946	31	.6	2,920,000	63.6	66,400,000	57.2
1947	15	.4	1,030,000	47.5	17,700,000	51.2
1948	20	.6	870,000	44.5	18,900,000	55.3

### Monthly Trends—Significant Stoppages

The occurrence of strikes during 1948 conformed more closely than that of 1947 to the month-by-month trends noted in other recent years. In the early months, stoppages increased in number and continued upward until late summer, when they tapered off to the customary low point of the year in December.

The most important of the 85 stoppages which continued from 1947 into 1948 was the strike involving about 1,600 typographical workers on 6 Chicago newspapers, over union-security issues in establishments where the closed shop had been accepted for years. This strike continued throughout 1948.

More than 300 stoppages began in each month from April through August. With the large bituminous-coal and meat-packing strikes in effect, March and April were the months with the

<sup>3</sup> See p. 532 for detailed statement on the "national emergency disputes" of 1948.

greatest number of workers involved and the greatest time loss.

TABLE 2.—Work stoppages in 1947 and 1948, by month

Month	Number of stoppages		Workers involved in stoppages			Man-days idle during month	
	Beginning in month	In effect during month	Beginning in month (thousands)	In effect during month		Number (thousands)	Percent of estimated working time <sup>1</sup>
				Number (thousands)	Percent of total employed <sup>1</sup>		
1947							
January.....	321	482	105.0	165.0	0.50	1,340	0.19
February.....	296	498	74.9	154.0	.47	1,230	.19
March.....	361	572	95.7	168.0	.51	1,100	.16
April.....	479	706	624.0	675.0	2.07	8,540	1.19
May.....	471	781	230.0	696.0	2.11	6,730	.97
June.....	379	701	448.0	597.0	1.79	3,960	.57
July.....	315	581	242.0	615.0	1.85	3,970	.54
August.....	336	583	113.0	259.0	.77	2,520	.35
September.....	219	435	79.2	187.0	.55	1,970	.28
October.....	219	393	64.3	171.0	.50	1,780	.23
November.....	178	328	57.2	139.0	.40	829	.13
December.....	119	236	32.3	56.9	.16	590	.08
1948							
January.....	221	306	77.5	102.0	.29	1,050	.14
February.....	256	367	93.2	132.0	.38	913	.13
March.....	271	426	494.0	552.0	1.58	6,440	.80
April.....	319	496	174.0	621.0	1.79	7,410	.97
May.....	339	553	168.0	344.0	.98	4,080	.57
June.....	349	565	169.0	243.0	.69	2,220	.28
July.....	394	614	218.0	307.0	.86	2,670	.36
August.....	355	603	143.0	232.0	.64	2,100	.26
September.....	299	553	158.0	267.0	.74	2,640	.33
October.....	256	468	110.0	194.0	.53	2,060	.27
November.....	216	388	111.0	189.0	.52	1,910	.26
December.....	144	283	40.5	93.1	.26	713	.09

<sup>1</sup> "Total employed workers," as used here refers to all workers except those in occupations and professions in which there is little if any union organization or in which strikes rarely, if ever, occur. In most industries it includes all wage and salary workers except those in executive, managerial, or high supervisory positions or those performing professional work the nature of which makes union organization or group action impracticable. It excludes all self-employed, domestic workers, agricultural wage workers on farms employing less than 6, all Federal and State Government employees, and officials (both elected and appointed) in local governments.

<sup>2</sup> Estimated working time was computed for purposes of this table by multiplying the average number of "employed workers" each year by the prevailing number of days worked per employee in that year.

During January, approximately 12,000 timber and sawmill workers, members of the United Construction Workers, affiliated with District 50, United Mine Workers of America (Ind.), stopped work for a wage increase, in the tri-State area of Maryland, Pennsylvania, and West Virginia. Work was resumed in late January, after the operators granted a substantial wage increase and adjusted their cost-price relationships with the coal-mining and steel companies, the purchasers of the timber products.

About 10,000 garment workers, members of the International Ladies' Garment Workers' Union (AFL), stopped work in Los Angeles in February, in connection with a drive to organize all nonunion shops in the area. Most of the workers were idle

only a few days, although picketing and individual stoppages continued over a considerable period before many of the shops were brought under signed contracts.

A demand for increased wages by 1,100 teachers in Minneapolis closed the city's public schools on February 24. This stoppage lasted for almost a month.

The two largest strikes of the year began in March when about 83,000 employees of major meat-packing companies, and 320,000 bituminous-coal miners became idle. The meat-packing employees, members of the United Packinghouse Workers of America (CIO) left their work in about 100 plants on March 16, when employers refused to offer more than a 9-cent hourly wage increase—the amount accepted previously by the Amalgamated Meat Cutters & Butcher Workmen of North America (AFL).

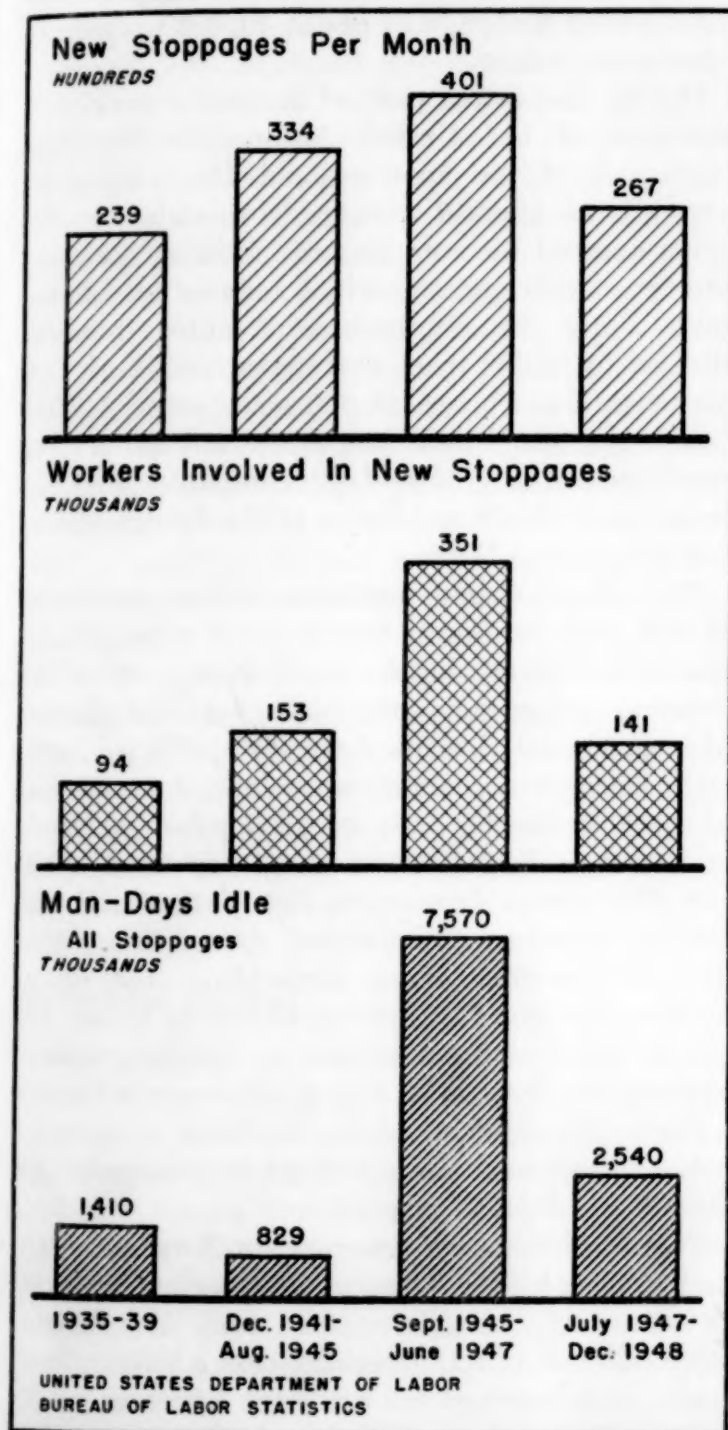
Acting under the national-emergency provisions of the Labor Management Relations Act, the President appointed a 3-man board of inquiry on March 15 to investigate the issues and report its findings. The Board's report was submitted April 8, and the Federal Mediation and Conciliation Service continued in its attempts to bring about a settlement. No injunction was sought to get the workers to return to their jobs. The strike continued officially until May 21, when it was terminated at the Swift, Armour, Morrell, and Cudahy plants, following a vote of the employees to accept the employers' offer of a 9-cent hourly wage increase. The settlement also provided for arbitration of disputes over reinstatement of strikers charged with unlawful acts during the stoppages. The fifth large packer—Wilson and Co.—was unable to reach agreement with the union on the latter provision, and the strike continued in its plants until June 5.

Most of the Nation's bituminous-coal miners stopped work on March 15, following a long dispute over the establishment of a pension system for miners in accordance with the 1947 contract. The welfare fund provided for in that contract was to be administered by a board of trustees composed of an industry representative, a union representative, and a third or neutral member. After several months of disagreement the neutral trustee resigned. The deadlock continued, and on March 12 the president of the United Mine Workers advised the miners that the bituminous-



coal operators had "dishonored" their 1947 wage agreement and had "defaulted under its provisions affecting the welfare fund." The union further charged that "no payments of any character have been made to any beneficiary or to anyone else

**Chart 2. Work Stoppages:  
Monthly Averages for Selected Periods**



from the welfare fund set up under the 1947 agreement."

A board of inquiry was appointed March 23. Following its report, a temporary restraining order was issued on April 3 instructing the union to

order the soft-coal miners back to work and directing the parties to resume collective bargaining on the pension plan. No immediate response to the order was forthcoming, and on April 7, the Government filed a request for contempt action against the union and its president, John L. Lewis.

Three days later (April 10), Joseph W. Martin, Speaker of the House of Representatives, proposed that Senator Styles Bridges of New Hampshire be considered for the post of neutral trustee. The union and the operators both accepted this suggestion. Two days later, Mr. Bridges proposed that the parties agree to grant pensions of \$100 per month to members of the union who, on and after May 29, 1946, had completed 20 years of service in the mines and had reached 62 years of age. This proposal was adopted, with the operators' representative dissenting.

On April 19, Mr. Lewis and the union were found guilty of civil and criminal contempt of court for having failed to instruct the miners to return to work. The union was fined \$1,400,000, and its president \$20,000, on the criminal contempt count. By April 26, most miners had returned to work; but Mr. Lewis and the union were still subject to civil penalties if further stoppages occurred.

Four stoppages, involving 10,000 or more workers each, occurred in April. Of these, the 5-month strike of about 18,000 workers employed at the Seattle plant of the Boeing Airplane Co. attracted widespread attention. The company claimed that the strike was in violation of the Labor Management Relations Act, alleging that the local union, an affiliate of the International Association of Machinists (Ind.) had broken its no-strike clause and had failed to give the required 60-day notice. The striking workers, according to the company, lost their status as employees and were not entitled to reinstatement. The National Labor Relations Board ruled, however, that negotiations had begun in March 1947, prior to the enactment of the law, and ordered the company to bargain with the union and reinstate the striking workers.

Also in April, a strike of slightly more than 100 members of the United Retail, Wholesale and Department Store Union (CIO) in New York City, against the Times Square Corp., gave rise to another significant NLRB decision. The Board ruled that in strike situations not caused by



unfair labor practices, striking employees who have been replaced are not eligible to vote in collective-bargaining elections.<sup>4</sup>

The largest stoppage in May was that of 75,000 employees of the Chrysler Corp., which involved members of the United Automobile Workers (CIO) working in 16 plants in Indiana, Michigan, and California. The union originally demanded an hourly wage increase of 30 cents and fringe adjustments, but scaled its demands down to 17 cents an hour just prior to the stoppage, which began May 12. A company offer of 6 cents an hour was withdrawn after its rejection by the union. The strike was settled on May 28, the workers receiving a flat 13-cent hourly wage increase under a contract effective until August 1950, with provision for a wage reopening by either party after June 15, 1949. Several days earlier, the General Motors Corp. and the UAW-CIO had reached an agreement providing for an 11-cent increase with provision for quarterly adjustments in wages based upon changes in the Bureau of Labor Statistics consumers' price index.

Early in July, about 42,000 workers in "captive" coal mines were idle for a short period when representatives of the large steel companies, operating the mines, refused to accept the union-shop provision in the 1948 contract previously agreed upon with the commercial operators. The captive mine operators filed an unfair labor practice charge against the union with the NLRB contending that the provision violated the Labor-Management Relations Act. The General Counsel of the NLRB issued a formal complaint on July 9 against the union and sought to enjoin the strike in a Federal court in Washington. The

union was given until July 13 to answer the charges. On that date an agreement was reached informally—the companies accepting the union-shop provision with the stipulation that it would be modified if subsequent court rulings required it.<sup>5</sup> The miners were instructed to return to work the next day, and on July 17 the injunction petition was dismissed. This controversy evoked a sympathy stoppage of about 40,000 workers in commercial mines.

During the latter part of August some 23,000 members of the United Automobile Workers, employees of the International Harvester Co., were idle for about 2 weeks. In this dispute, the union accused the company of following speed-up and time-study methods which reduced take-home pay. Early in September, disputes brought idleness to 16,000 truck drivers in New York and Northern New Jersey, 28,000 members of 5 West Coast maritime and longshore unions, 17,000 employees of a group of oil companies in California, and 25,000 employees of the Briggs Manufacturing Co. in Detroit.

The West Coast maritime strike, involving 28,000 workers, began September 2 after expiration of an 80-day injunction obtained under the national emergency provisions of the Labor Management Relations Act. It continued until early December. Higher wages and the retention of the union hiring halls were the principal issues in dispute. Negotiations were suspended when the Waterfront Employers Association and the Pacific-American Shipowners' Association withdrew all previous offers, demanding that union leaders sign non-Communist affidavits before renewal of bargaining discussions. Shipping operations to and from West Coast ports were virtually halted, although United States Army authorities made arrangements to move military cargo to the Orient and Pacific outposts.

Negotiations were resumed on November 10, and 15 days later agreement was reached with the International Longshoremen's and Warehousemen's Union (CIO) providing for a 3-year contract, with average hourly wage increases of 15 cents, additional vacation benefits, and retention of the union hiring halls pending a court decision on their legality. Earlier, a tentative agreement

<sup>4</sup> The occasion for the ruling arose out of an NLRB election conducted on July 2, in which the employees voted whether or not they wished to be represented by the Retail Clerks International Association (AFL). Local 830, United Retail, Wholesale and Department Store Union (CIO), which had represented the employees in the past, was ineligible to appear on the ballot because it had not complied with the registration and non-Communist affidavit requirements of the law.

At the election, the employer and the AFL challenged the voting eligibility of the 100 strikers on the ground that they were not entitled to reinstatement because they were economic strikers who had been permanently replaced. Board agents challenged 121 ballots cast by replacements pursuant to the CIO union's notice that the strike was caused by unfair labor practices of the employer, that the strikers consequently were entitled to reinstatement, and that their replacements, therefore, were temporary.

The two sets of challenges, the Board pointed out, brought into issue the nature of the strike. If the strike was caused by unfair labor practices, then the strikers would be entitled to vote. In considering the charge of unfair labor practices, the Board stated that it was bound by the determination of the office of the General Counsel and could not review his dismissal of charges that the employer had committed unfair labor practices.

<sup>5</sup> On January 20, 1949, a NLRB trial examiner ruled that the union-shop provision of the contract between the United Mine Workers and the "captive" mine operators was in violation of the Labor Management Relations Act since no union-shop election had been held as required by the act.

had been reached with the National Marine Engineers Beneficial Association (CIO), and the agreement reached by the longshoremen, paved the way for quick settlements with the 3 unions remaining on strike.

No large strikes began in October, but in November Atlantic Coast shipping was disrupted when about 45,000 members of the International Longshoremen's Association (AFL) stopped work in a dispute over increased wages and application of overtime rates of pay. The strike began as spasmodic stoppages on November 10, but became a union authorized coast-wide strike 2 days later. Shipping from Portland, Maine, to Hampton Roads, Va., was affected.

As in the case of the Pacific Coast maritime stoppage, the East Coast longshoremen struck after the national emergency machinery of the Labor Management Relations Act had been used, and after the 80-day injunction was dissolved as of midnight, November 9. Union and employer negotiators reached an agreement on November 9; but a majority of local unions voted against its acceptance, whereupon the union officially authorized the strike.

On November 25, settlement was reached with the aid of the Federal Mediation and Conciliation Service, providing for wage increases of 13 cents in straight-time rates and 19½ cents for night, holiday, and overtime rates, a welfare plan, and improved vacation benefits. Work was resumed on November 28 after ratification by union members.

### Industries Affected

The mining industry (primarily coal) was affected by work stoppages to a greater extent than any other industry during 1948. Approximately 10,400,000 man-days of idleness occurred in that industry—more than 30 percent of the total man-days lost. Excepting the records of 1943 and 1946, this was the largest figure for mining since 1927. The meat-packing strike accounted for the bulk of the approximately 5 million man-days of idleness in the food and kindred products group. Maritime strikes caused the transportation, communication, and other public utilities group to rank third in the amount of time lost, with over 3 million man-days. In fourth place was the transportation-equipment manufacturing group, which also had over 3 million man-days of idleness.

TABLE 3.—Work stoppages beginning in 1948, by industry group

Industry group	Stoppages beginning in 1948		Man-days idle during 1948	
	Number	Workers involved (thousands)	Number (thousands)	Percent of estimated working time <sup>2</sup>
All industries.....	3,419	1,960.0	34,100.0	0.37
Manufacturing.....	1,675	959.0	17,600.0	.46
Primary metal industries.....	168	56.7	1,450.0	.33
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	151	37.0	496.0	
Ordnance and accessories.....	1	.1	.2	
Electrical machinery, equipment, and supplies.....	64	31.0	402.0	.25
Machinery (except electrical).....	189	152.0	2,090.0	.59
Transportation equipment.....	107	278.0	3,170.0	.89
Lumber and wood products (except furniture).....	100	24.6	493.0	.18
Furniture and fixtures.....	63	12.1	156.0	
Stone, clay, and glass products.....	90	22.3	365.0	
Textile mill products.....	82	21.2	719.0	.19
Apparel and other finished products made from fabrics and similar materials.....	131	23.8	267.0	.08
Leather and leather products.....	45	9.8	215.0	.19
Food and kindred products.....	162	133.0	4,720.0	1.27
Tobacco manufactures.....	3	.6	4.3	.02
Paper and allied products.....	40	9.7	142.0	.12
Printing, publishing, and allied industries.....	43	10.9	587.0	.46
Chemicals and allied products.....	73	21.4	538.0	.31
Products of petroleum and coal.....	13	21.3	752.0	1.54
Rubber products.....	48	72.3	524.0	.90
Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks.....	31	5.7	146.0	.37
Miscellaneous manufacturing industries.....	72	15.3	339.0	
Nonmanufacturing.....	1,744	996.0	16,500.0	.51
Agriculture, forestry, and fishing.....	23	23.1	531.0	( <sup>3</sup> )
Mining.....	614	651.0	10,400.0	4.51
Construction.....	380	108.0	1,430.0	.29
Trade.....	241	30.2	557.0	.03
Finance, insurance, and real estate.....	18	1.9	46.3	( <sup>3</sup> )
Transportation, communication, and other public utilities.....	293	160.0	3,290.0	.34
Services—personal, business, and other.....	150	20.7	306.0	( <sup>3</sup> )
Government—administration, protection, and sanitation <sup>4</sup> .....	25	1.4	8.8	( <sup>3</sup> )

<sup>1</sup> This figure is less than the sum of the figures below because two stoppages which extended into two or more industry groups have been counted in this table as separate stoppages in each industry group affected; workers involved and man-days idle were allocated to the respective groups.

<sup>2</sup> See footnotes 1 and 2, table 2.

<sup>3</sup> Not available.

<sup>4</sup> Stoppages involving municipally operated utilities are included under "transportation, communication, and other public utilities."

### Major Issues Involved

Wage increases and fringe benefits continued to be important issues in 1948 disputes. About 51 percent of the strikes, 62 percent of the workers involved, and nearly 74 percent of the total idleness dealt principally with demands for higher pay. Included in this category was the largest strike of the year, the prolonged bituminous-coal stoppage over the activation of the miners' pension and welfare fund. In the later and smaller coal strike of 42,000 "captive" coal miners, as well as in stoppages in the maritime and printing indus-



tries, the retention of well-established union-security provisions was an important factor.

Roughly, about a fifth of the 1948 strike activity centered on questions of union recognition and union-security provisions. Prominent also in

TABLE 4.—Major issues involved in work stoppages in 1948

Major issues	Work stoppages beginning in 1948				Man-days idle during 1948 (all stoppages)	
	Number	Percent of total	Workers involved		Number	Percent of total
			Number	Percent of total		
All issues.....	3,419	100.0	1,960,000	100.0	34,100,000	100.0
Wages and hours.....	1,737	50.8	1,210,000	61.9	25,200,000	73.9
Wage increase.....	1,310	38.3	657,000	33.7	14,600,000	42.6
Wage decrease.....	18	.5	13,000	.7	533,000	1.6
Wage increase, hour decrease.....	31	.9	4,970	.3	111,000	.3
Other <sup>1</sup> .....	378	11.1	533,000	27.2	10,000,000	29.4
Union organization, wages and hours.....	322	9.4	128,000	6.5	4,390,000	12.9
Recognition, wages and/or hours.....	192	5.6	37,800	1.9	772,000	2.3
Strengthening bargaining position, wages and/or hours.....	25	.7	5,860	.3	229,000	.7
Closed or union shop, wages and/or hours.....	96	2.8	63,800	4.3	3,390,000	9.9
Discrimination, wages and/or hours.....	7	.2	290	( <sup>1</sup> )	2,100	( <sup>1</sup> )
Other.....	2	.1	380	( <sup>1</sup> )	710	( <sup>1</sup> )
Union organization.....	458	13.4	99,800	5.1	1,590,000	4.7
Recognition.....	313	9.2	34,500	1.8	729,000	2.1
Strengthening bargaining position.....	14	.4	4,000	.2	108,000	.3
Closed or union shop.....	63	1.8	50,800	2.6	632,000	1.9
Discrimination.....	45	1.3	6,000	.3	62,900	.2
Other.....	23	.7	4,390	.2	58,100	.2
Other working conditions.....	736	21.5	383,000	19.6	1,740,000	5.1
Job security.....	341	10.0	134,000	6.9	656,000	1.9
Shop conditions and policies.....	331	9.7	213,000	10.9	973,000	2.9
Work load.....	46	1.3	21,600	1.1	78,800	.2
Other.....	18	.5	14,400	.7	28,900	.1
Inter- or intra-union matters.....	130	3.8	128,000	6.6	1,080,000	3.2
Sympathy.....	43	1.3	89,000	4.6	477,000	1.4
Union rivalry or factionalism.....	49	1.4	33,400	1.7	566,000	1.7
Jurisdiction.....	35	1.0	4,250	.2	27,200	.1
Union regulations.....	3	.1	1,220	.1	14,000	( <sup>1</sup> )
Not reported.....	36	1.1	6,430	.3	69,900	.2

<sup>1</sup> Less than a tenth of 1 percent.

<sup>2</sup> This category includes the bituminous-coal pension dispute involving 320,000 workers.

some of these disputes were wage issues. A number of stoppages—for instance, those at the National Carbon Co. in Cleveland, the Hoover Co. in North Canton, and the Univis Lens Co. in Dayton, Ohio, the Bucyrus Erie Co. in Evansville, Ind., and Government Services, Inc., in Washington, D. C.—centered on the alleged refusal of employers to recognize or negotiate with unions not certified as bargaining agents by the

NLRB. In most cases these unions were ineligible for certification because of their refusal to file non-Communist affidavits.

Jurisdictional, union rivalry, and sympathy strikes accounted for about 1 out of every 25 stoppages. These controversies affected less than 7 percent of the total workers involved and accounted for 3.2 percent of all idleness.

### States Involved

New York and Pennsylvania each experienced about 450 stoppages in 1948. Ohio ranked next with 256 stoppages, Illinois had 237, and West Virginia 211. Less than 10 stoppages were recorded in each of 9 States—Arizona, Delaware, Idaho, Mississippi, Nevada, North Dakota, South Dakota, Vermont, and Wyoming.

Idleness exceeded 2 million man-days in 6 States—California, Illinois, Michigan, New York, Pennsylvania, and West Virginia.

TABLE 5.—Work stoppages in 1948, by State

State	Work stoppages beginning in 1948			Man-days idle during 1948 (all stoppages)	
	Number	Workers involved		Number (thousands)	Percent of total
		Number (thousands)	Percent of total		
All States.....	3,419	1,960.0	100.0	34,100.0	100.0
Alabama.....	124	69.8	3.6	981.0	2.9
Arizona.....	7	2.7	.1	149.0	.4
Arkansas.....	12	4.1	.2	87.6	.3
California.....	178	106.0	5.4	2,790.0	8.2
Colorado.....	19	9.5	.5	273.0	.8
Connecticut.....	42	18.0	.9	427.0	1.3
Delaware.....	8	1.7	.1	26.5	.1
District of Columbia.....	10	1.9	.1	35.6	.1
Florida.....	40	9.6	.5	189.0	.6
Georgia.....	27	7.4	.4	303.0	.9
Idaho.....	5	.4	( <sup>2</sup> )	4.2	( <sup>2</sup> )
Illinois.....	237	154.0	7.9	3,540.0	10.4
Indiana.....	119	76.1	3.9	1,070.0	3.1
Iowa.....	28	23.6	1.2	862.0	2.5
Kansas.....	13	10.4	.5	410.0	1.2
Kentucky.....	117	82.1	4.2	1,350.0	4.0
Louisiana.....	22	12.7	.7	152.0	.4
Maine.....	18	3.5	.2	27.7	.1
Maryland.....	25	11.7	.6	242.0	.7
Massachusetts.....	130	29.8	1.5	815.0	2.4
Michigan.....	196	262.0	13.4	2,450.0	7.2
Minnesota.....	37	16.9	.9	529.0	1.6
Mississippi.....	8	1.4	.1	54.3	.2
Missouri.....	65	15.6	.8	371.0	1.1
Montana.....	16	2.1	.1	22.8	.1
Nebraska.....	14	10.9	.6	417.0	1.2
Nevada.....	7	2.8	.1	38.4	.1
New Hampshire.....	18	2.1	.1	31.4	.1

See footnotes at end of table.



TABLE 5.—Work stoppages in 1948, by State—Continued

State	Work stoppages beginning in 1948			Man-days idle during 1948 (all stoppages)	
	Number	Workers involved		Number (thousands)	Per cent of total
		Number (thousands)	Per cent of total		
New Jersey.....	151	37.8	1.9	772.0	2.3
New Mexico.....	18	7.7	.4	82.4	.2
New York.....	450	155.0	7.9	2,390.0	7.0
North Carolina.....	22	2.6	.1	59.4	.2
North Dakota.....	7	.6	( <sup>1</sup> )	21.6	.1
Ohio.....	256	122.0	6.2	1,480.0	4.3
Oklahoma.....	17	3.3	.2	78.0	.2
Oregon.....	50	10.3	.5	360.0	1.1
Pennsylvania.....	449	309.0	16.0	4,170.0	12.0
Rhode Island.....	26	5.1	.3	114.0	.3
South Carolina.....	10	3.6	.2	24.2	.1
South Dakota.....	3	.2	( <sup>1</sup> )	3.1	( <sup>1</sup> )
Tennessee.....	70	27.2	1.4	441.0	1.3
Texas.....	68	25.1	1.3	280.0	.8
Utah.....	21	11.5	.6	366.0	1.1
Vermont.....	7	.6	( <sup>1</sup> )	14.2	( <sup>1</sup> )
Virginia.....	85	35.0	1.8	431.0	1.3
Washington.....	74	37.3	1.9	1,650.0	4.8
West Virginia.....	211	180.0	9.2	3,150.0	9.2
Wisconsin.....	71	25.8	1.3	469.0	1.4
Wyoming.....	4	4.2	.2	109.0	.3

<sup>1</sup> The sum of this column is more than 3,419 because the stoppages extending across State lines have been counted in this table as separate stoppages in each State affected, with the proper allocation of workers involved and man-days idle.

<sup>2</sup> Less than a tenth of 1 percent.

### Duration of Stoppages

The average length of stoppages ending in 1948 (21.8 calendar days) was less than in 1946 or 1947 and was also slightly less than the prewar average of 22.5 calendar days for the period 1935-39. About a fourth (25.5 percent) of the strikes in 1948 were brief, lasting from 1 to 3 days; almost the same proportion (22.0 percent) were lengthy, continuing for a month or more.

A few large stoppages of considerable duration raised the average number of working days lost per employee involved to 17.4. This figure was greater than in any recent period except the year 1946, when the average for each worker involved was 25 days of idleness.

### Unions Involved

Unions affiliated with the AFL were involved in more stoppages than were CIO affiliates. However, both the CIO and unaffiliated-union groups each had a greater number of workers involved in stoppages than did the AFL; they also accounted for the bulk of the year's total idleness.

TABLE 7.—Work stoppages in 1948, by affiliation of unions involved

Affiliation of union	Stoppages beginning in 1948				Man-days idle during 1948 (all stoppages)	
	Number	Per cent of total	Workers involved		Number	Per cent of total
			Number	Per cent of total		
Total.....	3,419	100.0	1,960,000	100.0	34,100,000	100.0
American Federation of Labor.....	1,446	42.2	426,000	21.8	6,000,000	17.6
Congress of Industrial Organizations.....	966	28.3	692,000	35.4	12,400,000	36.3
Unaffiliated unions.....	857	25.1	749,000	38.4	12,900,000	37.8
Rival unions (different affiliations).....	47	1.4	32,200	1.6	561,000	1.6
Single firm unions.....	10	.3	6,440	.3	59,800	.2
Cooperating unions (different affiliations).....	20	.6	44,700	2.3	2,130,000	6.3
No unions involved.....	65	1.9	4,120	.2	61,000	.2
Not reported.....	8	.2	540	( <sup>1</sup> )	4,810	( <sup>1</sup> )

<sup>1</sup> Less than a tenth of 1 percent.

# Employment and Unemployment of Radio Artists

HELEN WOOD<sup>1</sup>

RADIO ACTORS had a much higher rate of unemployment in the spring of 1948 than did the working population as a whole, according to a survey of radio artists in 15 major centers. The study was made by the Bureau of Labor Statistics in cooperation with the American Federation of Radio Artists.<sup>2</sup> Radio singers also had a high unemployment rate, though lower than that for actors. Most announcers and sound-effects men, however, were found to be regularly employed.

## Employment Arrangements in Broadcasting

Employment in radio broadcasting is divided into two categories—staff and free lance. The regularity with which a radio artist is employed depends to a great extent upon the category to which he belongs.

Every radio station and network has a full-time staff of persons who are paid on a regular weekly salary basis, plus additional pay for any overtime work and, in the case of many artists, extra "talent fees." Of the four occupational groups included in the survey, announcers and sound-effects men usually have staff jobs and therefore steady employment.

<sup>1</sup> Of the Bureau's Occupational Outlook Branch.

Forthcoming reports presenting the survey findings on artists' earnings, work experience, education, and training, as well as more detailed data on their employment status, will be available upon request.

<sup>2</sup> The survey included 3,742 artists in New York, Los Angeles, Chicago, San Francisco, Boston, Detroit, Seattle, Cincinnati, Pittsburgh, St. Louis, Portland, Oreg., Washington, D. C., Cleveland, Minneapolis, and Kansas City. Questionnaires were sent to all members of the American Federation of Radio Artists in these cities; only those artists who had had recent paid employment as radio performers were included in the study.

Radio actors and singers, on the other hand, are usually employed on a free-lance basis, as are a small proportion of the announcers. Free-lance artists are hired for specific broadcasts or series of programs; they are employed by many stations, by the networks, by sponsors (or their advertising agents), or by "program production" companies. Most free-lance actors and singers work not only in radio but wherever else they find openings—in the movies, legitimate theater, night clubs, or other fields of entertainment. Free-lance announcers, however, work primarily in radio. The amount of work which free-lance artists have depends on a variety of factors, including the prevailing demand for certain types of talent, the intensity of competition, the ability and experience of the individual artist, and the reputation he has achieved.

## Employment Status, Spring of 1948

The great majority of announcers and sound-effects men in the 15 cities studied were found to be employed during the survey-week in the spring of 1948.<sup>3</sup> Of the announcers, 92 percent had work as radio performers and 4 percent had work of other types only, leaving 4 percent who were without any employment. For sound-effects men, the percentages were still more favorable—92 percent were employed as radio performers, another 7 percent were in other work, and only 1 percent were without work.

Los Angeles was the city in which the proportion of announcers unemployed was highest—9 percent. Next came San Francisco, with 5 percent unemployed, and New York, with 4 percent. In Chicago, only 1 announcer of the 119 reporting was without work. The other, smaller, centers likewise had a very low unemployment rate in this occupation.

The employment situation for singers was far less favorable. Only about half of them (52 percent) made radio broadcasts during the survey week. A sizable group (32 percent) had other kinds of work only, but nearly a sixth of the singers were without employment.

Actors had the worst employment experience. The proportion of these artists who had work on

<sup>3</sup> Members of the New York local were asked to report their employment status during the week beginning April 4, 1948; for members of other locals, to whom questionnaires were mailed later, the survey week was that beginning May 9.



the radio in the survey week was nearly as large (50 percent) as among singers, but the proportion who had other types of work only (23 percent) was smaller than for singers. Over a fourth of the actors had no work of any kind during the week.

By city, the proportion of actors and singers totally unemployed during the survey week was as follows:

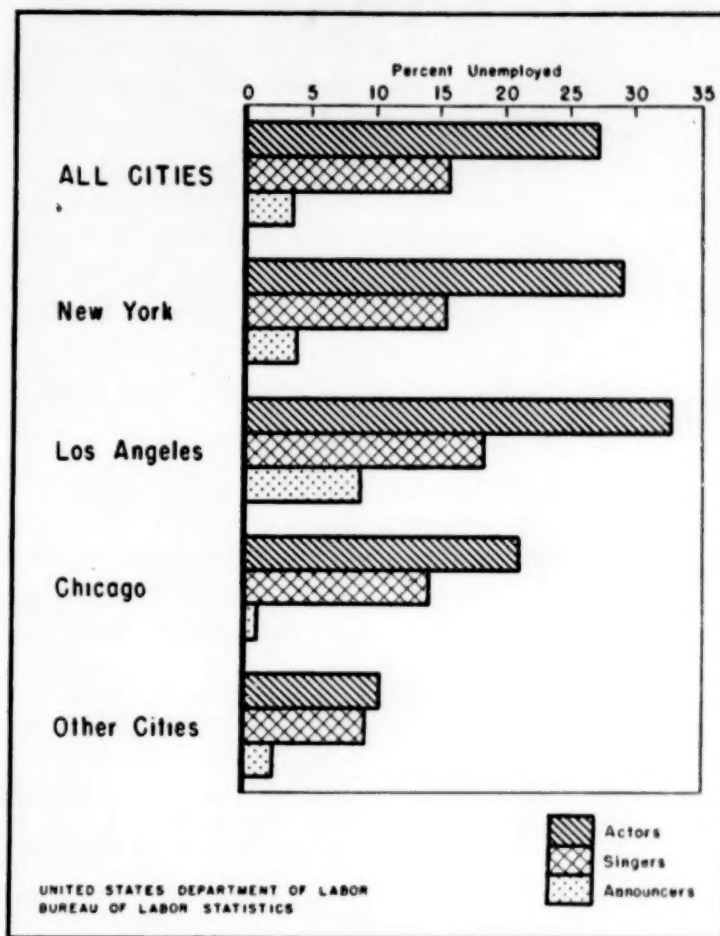
	Percent unemployed	
	Actors	Singers
All cities.....	27.3	15.6
New York.....	29.0	15.4
Los Angeles.....	32.7	18.3
Chicago.....	21.1	14.3
Other cities.....	10.3	9.4

The import of these figures is apparent when the prosperous conditions and low rate of unemployment in the country as a whole are considered. Only 3.6 percent of the Nation's workers were unemployed in April 1948, and 2.9 percent in May, according to estimates made by the Bureau of the Census. The rate of unemployment among announcers in the survey was not significantly higher than this. But among the singers it was four or five times as high and among the actors eight or nine times as high as among all working people in the country.

The especially high unemployment rates among actors and singers in New York, Los Angeles, and Chicago are related to the characteristics of free-lance employment in these areas. These are the cities where artists tend to center in the hope of securing engagements in radio, theaters, night clubs, moving pictures, and other places of entertainment. The demand for certain kinds of acting, singing, and other artistic talent fluctuates with types of program presentations.

Unemployment, of course, had a very different meaning for different performers. A few of the artists involved were high-paid stars, who customarily had irregular employment and did not need or expect to work every week. Some were students or married women who, though seeking radio work, could rely on their families' for support. But for many others, unemployment was a serious problem (as was shown by the figures they gave on their earnings).

### Unemployment of Radio Artists: Spring 1948



### Regularity of Employment in 1947

The work experience of the radio artists during 1947 also shows that announcers and sound-effects men usually have steady employment, whereas singers and actors, especially the latter, have a much greater problem of unemployment.

Over two-thirds of the announcers in the study worked on the radio in 50 or more weeks of 1947, the equivalent of year-round employment with a 2-week vacation. Three out of 4 had radio work in 48 or more weeks. Sound-effects men likewise had steady employment in most instances. In contrast, only a fifth of the actors and little more than a fourth of the singers had work on the radio in as many as 50 weeks; about half the artists in these typically free-lance professions had such work in less than 26 weeks.

When they were not working as radio performers, actors and singers often had other types of

work. A third of the singers and nearly as large a proportion of the actors had more weeks with other work only than with work as radio performers.

Nevertheless, nearly a fifth of the actors and a tenth of the singers were entirely without work and looking for work during at least half the weeks of 1947 (see table). In contrast, only 1 out of 50 announcers had as many as 26 weeks of unemployment, and the proportion was still smaller among sound-effects men. Only half of the actors and two-thirds of the singers had as little as 4 weeks without work during the year, though about 9 out of 10 announcers and sound-effects men were in this relatively favorable situation.

*Percentage distribution of radio artists by weeks of unemployment in 1947<sup>1</sup>*

Weeks of unemployment	All types of performers	Announcers	Singers	Actors	Sound-effects artists
None.....	64.3	84.8	64.0	45.5	88.6
1 week.....	.4	.6	.4	.4	-----
2 weeks.....	1.4	1.1	.7	2.1	-----
3 or 4 weeks.....	2.3	1.5	2.2	3.0	4.3
5 and under 13 weeks.....	10.3	5.4	12.5	13.9	4.3
13 and under 26 weeks.....	10.7	4.4	10.5	16.8	1.4
26 and under 39 weeks.....	7.1	1.7	5.3	12.7	-----
39 weeks and over.....	3.5	.5	4.4	5.6	1.4
Total.....	100.0	100.0	100.0	100.0	100.0
Performers reporting weeks of unemployment.....	3,207 <sup>2</sup>	1,146	549	1,341	70

<sup>1</sup> Excluding periods when artists were ill, on vacation, or for other reasons not available for employment.

<sup>2</sup> Includes 101 artists who could not be classified by occupation.

In each occupation, unemployment generally tended to be more frequent among young people than among those in the next older age groups, who are likely to be better established and more widely known. Among actors in the age groups above 50, however, the rate of unemployment tended to become somewhat higher again. Few announcers and singers aged 50 or over were included in the survey, but these usually had steady employment.

The unemployment figures include only weeks without any work whatever. Many artists had, in addition, long periods with little employment and low earnings.

Many actors and singers regarded economic insecurity as the main disadvantage of their professions, according to their comments on the questionnaires. Probably, in this as in other surveys, the least-satisfied people were more prone to volunteer comments than those who had no urgent problems. The remarks therefore do not fully describe the point of view of all radio artists about their field of work, but they do show what problems are uppermost in artists' minds. The following comments are typical of those received from artists with a number of years' experience in radio acting or singing:

An actor who made about \$16,000 during 1947, on the radio and in motion pictures, stated: "Every job feels like it's the very last. Insecurity is in the blood stream of most actors, no matter how impressive the annual gross may be."

A woman singer commented: "Have made a good living for 16 years in the combined field of radio and pictures, but only by working at *all* major studios. The last 6 months I have had only 3 days' work. Steer newcomers away from this heart-breaking work."

An actor with 14 years' experience in radio and the legitimate theater wrote: "To the best of my knowledge, I am one of the few actors who has, since graduation from college, made his living solely as an actor. Without benefits of private income or parental help, I have worked *only* as an actor, never having been forced by economic necessity to obtain employment in fields outside the entertainment field."

Another actor, who was employed mainly in radio, reported: "Income in 1939—\$280. Income previously (after graduation from college in 1933) about the same, except 1 year's run on Broadway at \$40 per week. Income 1940—\$1,800; 1941, 1942, 1943, very little more. Started really rolling in 1943 just before induction into Army. In other words, it took 8 years of starvation and a ruined stomach before I made a fair living out of it. Now I do well, but with recent overcrowding and keener competition it is becoming \* \* \* increasingly difficult."



# Labor Share in Construction Cost of New Houses

ADELA L. STUCKE<sup>1</sup>

PAY ROLL AT THE SITE accounted for about a third of total construction cost of new housing built during 1946-47 in 18 industrial areas surveyed in the area housing program of the Bureau of Labor Statistics.<sup>2</sup> This proportion was approximately the same as that in the 1931-32 survey (table 1). According to Bureau findings, the ratio of site wages to total construction cost remained fairly stable (from about 32 to 38 percent) over this 15-year period when economic conditions were changing markedly. The ratio for individual projects, however, often departed widely from this range.

Average hourly earnings were substantially higher in 1946-47 than in the early 1930's. But the figures in table 1 suggest that material and other costs rose commensurately with wages.

The 1946-47 study revealed a definite relationship between size and quality of house being constructed, as indicated roughly by total construction cost, and the ratio of site pay roll to total construction cost. Pay rolls constituted a larger proportion of total cost in the low-cost projects, and tended to decline in importance as the average construction cost increased. The ratio of labor to total cost was also higher for the large-scale than for the small-scale projects. However, this relationship was also affected by average unit costs, which were lower on the large-scale than on the small-scale projects.

<sup>1</sup> Of the Bureau's Division of Construction Statistics.

<sup>2</sup> See Housing Statistics, 1946 and 1947: Sampling Methods and Survey Techniques, Monthly Labor Review, August 1948 (p. 161).

Average hourly earnings reflected primarily regional differences in wage rates, and did not appear to be related to project size or unit construction costs. Earnings averaged considerably less in the southern than in the northern and western areas.

The survey covered 1,760 dwelling units, 1,191 in one-family structures and 569 in multifamily structures. The single-family housing was located in 295 projects and the multifamily in 41 projects within the 18 areas. Although a few dwellings were started in the latter part of 1945 and one project was not completed until early 1948, nearly all the housing was built in 1946 and 1947. Each region surveyed was an industrial or large urban area comprising a county or a group of counties. Information on construction cost,<sup>3</sup> man-hours worked, and pay-roll expenditures<sup>4</sup> was obtained from the records of contractors and subcontractors. All housing was contractor-built for owner-occupancy, sale, or rent. No units were included on which the owner himself did part of the work.

TABLE 1.—Ratio of site wages to total construction cost of selected housing projects, 1931-47

Projects	Date of construction	Number of dwelling units surveyed	Site wages as percent of construction cost	Average hourly earnings
Miscellaneous projects, 18 areas:				
Single-family dwellings.....	1946-47	1,191	32.7	\$1.63
Multifamily dwellings.....	1946-47	569	32.2	1.63
Defense housing projects, various cities.....	1941	8,100	32.3	.96
47 PWA housing projects, various cities.....	1935-37	21,463	37.5	.99
Knickerbocker Village, New York City.....	1933-34	1,593	32.5	1.15
Miscellaneous projects, 15 cities.....	1931-32	(2)	32.0	(7)

<sup>1</sup> Approximate.

<sup>2</sup> Not available.

<sup>3</sup> Approximate. For this group, data were obtained only for site wages and material expense, exclusive of contractors' other expenses and profit. On the assumption that other expenses and profit of the contractors and subcontractors were 15 percent of total construction cost, site wages amounted to 31.7 of the total. An allowance of 15 percent for other expenses and profit would be low under normal circumstances, but probably quite realistic for 1931-32.

The following analysis is confined to single-family houses except for size-of-project comparisons. Although the ratio of site pay roll to total

<sup>4</sup> Construction cost includes cost of labor, materials, all subcontracted work, and that part of the contractor's overhead and profit chargeable directly to the project. It does not include land and development cost, sales profit, selling costs, and such nonconstruction expenses as architectural and engineering fees. It is shown only to indicate the cost class of units to which data on labor requirements and costs apply, and should not be used to make comparisons between regions of average construction cost of units.

<sup>5</sup> The labor costs cover actual wages paid to workers on the job and do not include any off-site labor such as that involved in cutting of stone at quarries or fabrication in mills.

construction cost for the multifamily units studied corresponded closely to that for one-family houses, too few projects of the multifamily type were covered to support a detailed analysis.

### Variations by Construction Cost Class

The amount of labor time required to build a house varies, in general, in direct relationship to the cost of the structure; and the more expensive house, as a rule, will be the larger house. Average

TABLE 2.—Labor requirements and costs in 1-family house construction in 18 areas,<sup>1</sup> by construction cost class and region, 1946-47

Item	All dwelling units	Average construction cost per unit <sup>2</sup>		
		Under \$5,000	\$5,000 to \$10,000	\$10,000 and over
All areas				
Number of dwelling units.....	1, 191	128	934	129
Average square feet of floor area per unit <sup>3</sup> .....	755	755	870	1, 165
Average construction cost per unit <sup>2</sup> .....	\$7, 395	\$4, 055	\$7, 160	\$11, 595
Average cost per square foot of floor area.....		\$5. 35	\$8. 25	\$9. 90
Average pay roll per unit <sup>4</sup> .....	\$2, 395	\$1, 650	\$2, 325	\$3, 555
Pay roll as percent of total construction cost <sup>5</sup> .....	32. 7	40. 7	32. 5	30. 7
Average number of man-hours per unit.....	1, 465	1, 150	1, 410	2, 190
Value of work put in place per man-hour <sup>6</sup> .....	\$5. 00	\$3. 55	\$5. 05	\$5. 30
Average hourly earnings.....	\$1. 63			
South <sup>7</sup>				
Number of dwelling units.....	155	72	68	15
Average square feet of floor area per unit <sup>3</sup> .....	925			
Average construction cost per unit <sup>2</sup> .....	\$6, 045	\$3, 825	\$7, 070	\$12, 030
Average pay roll per unit <sup>4</sup> .....	\$2, 310	\$1, 685	\$2, 545	\$4, 255
Pay roll as percent of total construction cost <sup>5</sup> .....	38. 2	44. 0	36. 0	35. 4
Average number of man-hours per unit.....	1, 725	1, 250	1, 915	3, 130
Value of work put in place per man-hour <sup>6</sup> .....	\$3. 50	\$3. 10	\$3. 70	\$3. 85
Average hourly earnings.....	\$1. 34			
North and West <sup>8</sup>				
Number of dwelling units.....	1, 036	56	866	114
Average square feet of floor area per unit <sup>3</sup> .....	875			
Average construction cost per unit <sup>2</sup> .....	\$7, 495	\$4, 350	\$7, 165	\$11, 535
Average pay roll per unit <sup>4</sup> .....	\$2, 400	\$1, 610	\$2, 310	\$3, 460
Pay roll as percent of total construction cost <sup>5</sup> .....	32. 0	37. 1	32. 2	30. 0
Average number of man-hours per unit.....	1, 430	1, 025	1, 370	2, 065
Value of work put in place per man-hour <sup>6</sup> .....	\$5. 25	\$4. 25	\$5. 25	\$5. 60
Average hourly earnings.....	\$1. 68			

<sup>1</sup> An area is composed of a county or group of counties surrounding the principal city or cities.

<sup>2</sup> Construction costs do not include sales profit, selling costs, cost of land and site improvements, and all such nonconstruction expenses as architectural and engineering fees. They cover only cost of labor, materials, and sub-contracted work, and that part of the builder's overhead and profit chargeable directly to the construction project.

<sup>3</sup> Floor area was measured as gross finished floor area of interior of each unit; excludes areas of garages, basements, and unfinished attics.

<sup>4</sup> Labor costs cover only wages paid to site workers; they exclude all shop labor such as that involved in fabrication at the mills.

<sup>5</sup> Computed before rounding.

<sup>6</sup> Total construction cost divided by number of man-hours worked, and rounded to the nearest 5 cents.

<sup>7</sup> Comprises 4 industrial areas in which the principal cities are Atlanta, Dallas, Knoxville, Mobile.

<sup>8</sup> Comprises 14 industrial areas in which the principal cities are Boston, Chicago, Cleveland, Denver, Indianapolis, Lansing, Los Angeles, Milwaukee, New York, St. Louis, San Francisco, Seattle-Takoma, Syracuse, and Washington.

construction cost per unit and average man-hours of work required increase as size of house increases (see table 2). On the other hand, site pay roll as a percentage of construction cost declines as size and cost of unit increases. Thus, for the one-family units studied, pay roll constituted 40.7 percent of the cost of houses averaging under \$5,000 as against 32.5 percent for houses in the \$5,000 to \$10,000 group and 30.7 percent for those costing \$10,000 and over. The relationship between low construction cost and proportionately high labor cost held true whether exterior walls were of wood or of other materials (see table 3).

TABLE 3.—Labor requirements and costs in 1-family house construction in 18 areas,<sup>1</sup> by type of exterior wall material, 1946-47

Item	All dwelling units	Average construction cost per unit <sup>1</sup>		
		Under \$5,000	\$5,000 to \$10,000	\$10,000 and over
Frame <sup>2</sup>				
Number of dwelling units.....	536	39	443	54
Average construction cost per unit <sup>2</sup> .....	\$7,240	\$4,180	\$7,020	\$11,280
Average pay roll per unit <sup>4</sup> .....	\$2,355	\$1,585	\$2,310	\$3,260
Pay roll as percent of total construction cost <sup>5</sup> .....	32.5	38.0	32.9	28.9
Average number of man-hours per unit.....	1,415	1,035	1,390	1,995
Value of work put in place per man-hour <sup>6</sup> .....	\$5.10	\$4.05	\$5.10	\$5.65
Other <sup>7</sup>				
Number of dwelling units.....	655	89	491	75
Average construction cost per unit <sup>2</sup> .....	\$7,360	\$4,000	\$7,285	\$11,820
Average pay roll per unit <sup>4</sup> .....	\$2,410	\$1,680	\$2,340	\$3,765
Pay roll as percent of total construction cost <sup>5</sup> .....	32.8	42.0	32.1	31.9
Average number of man-hours per unit.....	1,510	1,200	1,440	2,325
Value of work put in place per man-hour <sup>6</sup> .....	\$4.90	\$3.35	\$5.05	\$5.10

<sup>1</sup> See footnote 1, table 2.

<sup>2</sup> See footnote 2, table 2.

<sup>3</sup> Covers units with wood exterior material—wood shingles, siding, boxing, etc.

<sup>4</sup> See footnote 4, table 2.

<sup>5</sup> Computed before rounding.

<sup>6</sup> See footnote 6, table 2.

<sup>7</sup> Covers units with masonry exterior—brick, tile, stone, concrete block, cinder block; also units with exterior of stucco, asbestos shingles, and brick veneer. It is recognized that this is far from a homogeneous group, but too few units of each type were studied to warrant separate presentation of results.

The fact that man-hour requirements were higher while the proportionate labor costs were lower on the more expensive houses than on the others seems contradictory. This may be explained in part by (1) better quality, hence more expensive, materials and equipment which undoubtedly were used on the higher-cost houses, and (2) the ratio of unskilled to skilled labor which was probably greater on the more expensive



houses because relatively more unskilled workers were used for such jobs as site preparation and landscaping.<sup>5</sup> Thus, while total man-hours needed to construct the average dwelling in the upper-cost bracket tend to be high, the labor share of construction cost may be reduced because of the increased proportion of man-hours for lower-paid workers.

### Regional Variations

Of the 1,191 single-family houses included in the survey, 1,036 were in 14 areas in the North and the West, and the remaining 155 were in 4 southern areas. Site labor cost constituted a somewhat higher proportion of total construction cost on the southern projects (38.2 percent) than on those in other parts of the country (32.0 percent).

Average construction cost of \$6,045 a unit and average hourly earnings of \$1.34 on the southern projects were about one-fifth lower than the respective averages in the other areas (see table 2). But the average number of man-hours required per dwelling unit (1,725) was a fifth higher, the average pay roll per house (\$2,310) was only 4 percent lower, and the value of work put in place per man-hour (\$3.50) was a third less. On the other hand, the houses in the southern areas were generally larger, averaging 50 square feet a unit more than those in northern and western areas. Labor's share, man-hours, and earnings varied widely from project to project in all the survey areas.

Whether labor utilization is relatively more or less effective in the South than in the rest of the country cannot be determined from these data, because of the differences in cost and types of dwellings studied. The higher proportion of labor cost in the South, in spite of lower wages, is partially explainable by the fact that a larger house, on the average, was built at less cost. This in turn was probably due to a predominance in the southern projects of houses without basements, wall insulation, or central heating, which meant that the average materials bill was undoubtedly less than for projects in the other areas. Use of less expensive materials could, of course, also

<sup>5</sup> For an occupational distribution of man-hours worked on single-family housing built in this period, by construction cost classification, see *House Construction: Man-Hours by Occupation, 1946-47*, Monthly Labor Review, December 1948 (p. 611).

account for the lower value of work put in place per man-hour on the southern projects.

That the presence or absence of central heating alone could be enough to influence the ratio of labor cost to total construction cost is substantiated by the Bureau's 1931-32 study.<sup>6</sup> At that time, it was found that heating and ventilation had the lowest relative labor cost of any class of work on residential building, and in many cases accounted for a tenth of the total bill for materials and labor.

### Variations by Size of Project

Data for both one-family units and multifamily structures are presented in table 4 according to size of project merely to show that size of building operations affects each in the same general way. Comparisons between the two types of housing, however, should not be made on such items as average construction cost, man-hour requirements, etc., because the sample was not selected for this purpose.

Labor cost in relation to total cost, on the aver-

TABLE 4.—*Labor requirements and costs in house construction in 18 areas,<sup>1</sup> by type of structure and size of project, 1946-47*

ONE-FAMILY STRUCTURES				
Item	All dwelling units	Size of project		
		1-5 units	5-25 units	25-50 units
Number of dwelling units.....	1,191	311	476	404
Average construction cost per unit <sup>2</sup> .....	\$7,305	\$7,960	\$7,610	\$6,450
Average pay roll per unit <sup>3</sup> .....	\$2,385	\$2,510	\$2,450	\$2,210
Pay roll as percent of total construction cost <sup>4</sup> .....	32.7	31.6	32.2	34.3
Average number of man-hours per unit.....	1,465	1,585	1,530	1,305
Value of work put in place per man-hour <sup>5</sup> .....	\$5.00	\$5.05	\$5.00	\$4.95

MULTIFAMILY STRUCTURES <sup>6</sup>				
Item	All dwelling units	Size of project		
		2-5 units	5-25 units	25 units or more
Number of dwelling units.....	569	56	173	340
Average construction cost per unit <sup>2</sup> .....	\$5,195	\$7,055	\$5,960	\$4,495
Average pay roll per unit <sup>3</sup> .....	\$1,675	\$2,085	\$1,885	\$1,500
Pay roll as percent of total construction cost <sup>4</sup> .....	32.2	29.5	31.6	33.4
Average number of man-hours per unit.....	1,025	1,215	1,100	955
Value of work put in place per man-hour <sup>5</sup> .....	\$5.05	\$5.80	\$5.40	\$4.70

<sup>1</sup> See footnote 1, table 2.

<sup>2</sup> See footnote 2, table 2.

<sup>3</sup> See footnote 4, table 2.

<sup>4</sup> Computed before rounding.

<sup>5</sup> See footnote 6, table 2.

<sup>6</sup> Structures comprising 2 or more dwelling units.

<sup>7</sup> See *Relative Cost of Material and Labor in Building Construction, 1931-32*, Monthly Labor Review, October 1932 (p. 763).

age, was greater on large-scale operations than on small projects for both one-family and multifamily housing, although the number of man-hours required per unit was less. The reason for this is that the average construction cost per unit was lower on the largest than on the smallest projects for both types of construction—19 percent for single-family and 36 percent for multifamily housing.

The results of the survey do not support any definite conclusions regarding possible economies

in large-scale operation. Lower average construction costs on the larger projects studied may have resulted from the characteristics of the housing involved. Furthermore, the survey period was characterized by scarcities of building materials and spotty shortages of some types of skilled construction workers. These conditions not only prevented many builders from economizing through possible efficiencies of large-scale operations, but in numerous cases probably added to operating costs.

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## **IAM Institutes for Educational Training<sup>1</sup>**

A 4-DAY EDUCATIONAL TRAINING INSTITUTE WAS opened by the International Association of Machinists (Ind.) at Philadelphia on January 28, 1949. A group of union officers and members participated in this institute, which was the first in a series of such conferences. Similar sessions were held in different parts of the country, one after another, throughout the winter and spring.

<sup>1</sup> Information is from *Your Job and Mine: Teaching Ourselves How to Teach Ourselves*. By Harvey W. Brown. (In *Machinists Monthly Journal*, Washington, February 1949, p. 42.)

Harvey W. Brown, IAM president, stated: "Thus, in the beginning of 1949 our union has put into operation a machinery to accelerate the process of training and educating itself, a process which has been going on, in one way or another, ever since the organization was founded 60 years ago. \* \* \* The main goal is to make us more effective as a union."

The IAM educational department, which has conducted the institutes, was established in the spring of 1947 in response to repeated demands by the union's membership. Authority for the formation of such a department had been voted by delegates to IAM conventions.



# Summaries of Studies and Reports

## Labor Utilization Patterns on Selected Housing Projects<sup>1</sup>

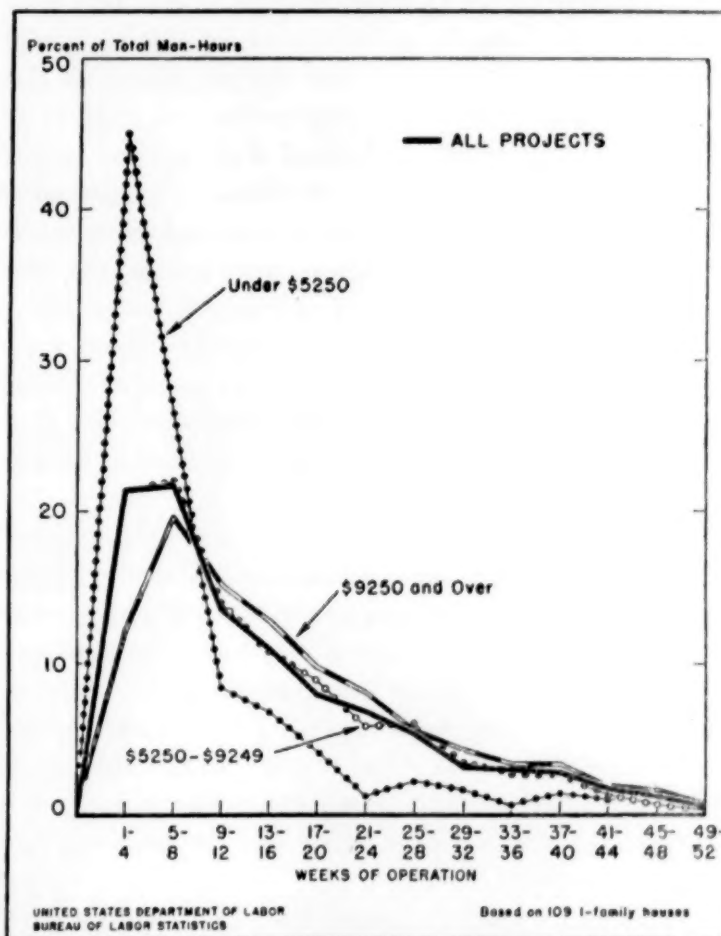
FACTORS WHICH PRIMARILY DETERMINE the labor utilization pattern in the construction of one-family houses are size and quality as indicated roughly by estimated construction cost;<sup>2</sup> length of time under construction; and size of project, that is, whether the house is built as one unit on an isolated site or as one of several units on contiguous or adjacent lots. The kind of exterior wall material used also has considerable influence not only on the types of labor involved but also on the rate at which labor is utilized.

The greatest contrast in labor utilization patterns is found between single-unit operations and multiple-unit operations. In the construction of 109 one-unit projects in 1946 and 1947, half of the total man-hours required were worked on the average during the first 10 weeks after construction was started, a sharp peak being reached during the fifth week. For 1,396 houses in projects of 25 or more units each, the half-way mark was not reached until about the thirty-fourth week; there was no pronounced peak of activity but rather a sustained level, with minor fluctuations, beginning in the seventeenth week and continuing for about 6 months, or until the house neared completion. The average total number of man-hours required per unit was 1,590 for the single-unit projects and 1,350 for the multiple-unit projects.

The more evenly distributed work on large-scale projects as contrasted with the sharp peaks on single-unit projects may or may not have had significance from the standpoint of regularity of

employment for building-trades workers. There is a possibility that builders of single-unit projects had several under way at about the same time and shifted their workmen from one project to another in the same way that workers were shifted from one house to the next on large-scale projects. It would appear reasonable to assume, however, that less time was lost in making the shifts and in setting up operations where the move was for only a short distance.

Chart 1. Labor Utilization Patterns by Cost



<sup>1</sup> Prepared by Edward M. Gordon of the Bureau's Division of Construction Statistics.

<sup>2</sup> Construction cost includes cost of labor, materials, all subcontracted work, and that part of the contractor's overhead and profit chargeable directly to the construction project; it does not include land and development costs.

Among the single-unit projects, the less expensive houses showed a sharp rise in man-hours worked during the first few weeks, after which labor input dropped rapidly. As cost increased, however, the initial rise was less steep and the

subsequent drop from the peak was more gradual. A similar difference in the labor utilization pattern was noted between houses with frame exterior walls and those having masonry exteriors. Man-hours worked increased rapidly on frame structures during the first few weeks of operation, whereas they rose slowly on masonry houses and declined less sharply from the peak. Labor utilization on single-unit projects was also affected by the total length of time they were under construction.

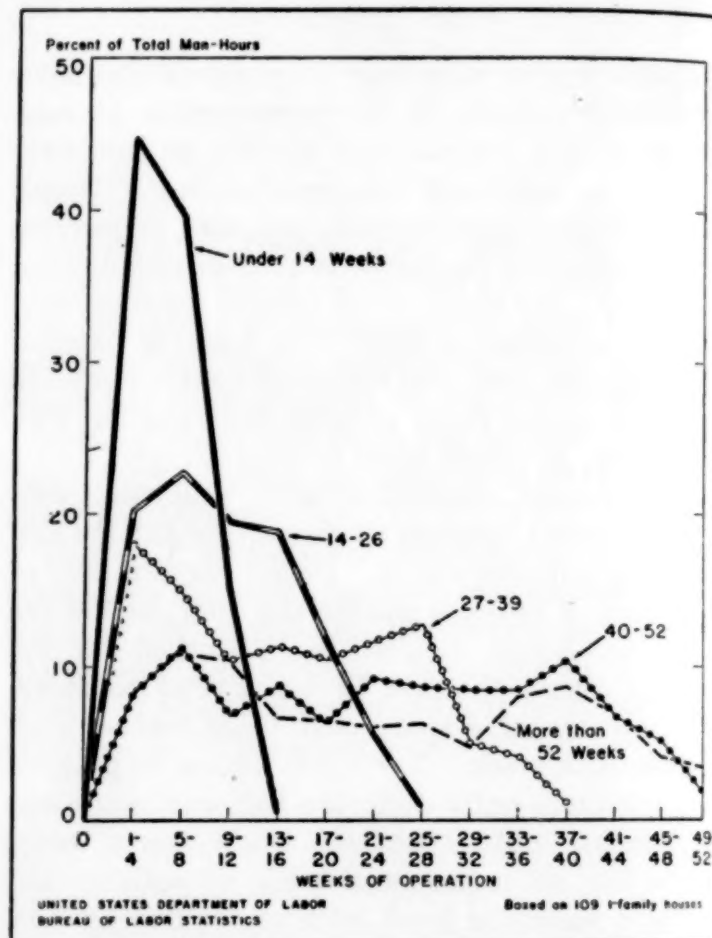
These findings are the results of surveys conducted in 11 different areas<sup>3</sup> as part of the Bureau's area-housing program.<sup>4</sup> Data here presented cover man-hours worked on 191 projects consisting of 1,877 one-family houses—109 built as single-unit projects and 1,768 in projects of more than one unit. The houses studied were started during the last half of 1946 and the first half of 1947 and were completed prior to December 1947. For the purposes of this study, a "week of operation" was defined as any pay-roll week ending between the start and completion of construction, regardless of the amount of work performed during that week. Thus, a week during which there was no construction activity, was still considered as a week of operation. In combining man-hours for the various projects, weeks of operation were combined without regard to actual calendar dates, i. e., total hours worked during the first week of operation for the 109 single-unit projects were the sum of the hours worked during the first week of operation on each project.

The projects studied were selected in a manner designed to give representation to the various types and sizes of houses being built in the survey areas. All projects were being built by contractors, either for owner occupancy or for sale or rent. No houses were included where the owner was doing part of the work. Man-hour data were obtained periodically during the life of each project from time records of the contractors and subcontractors.

It should be kept in mind that the period during which the houses were built was one of restrictive regulations, shortages of materials, and, in some cases, shortages of various types of skilled construction workers, all of which undoubtedly had

an effect on the time needed to complete the houses. The construction time for houses built during this period was probably longer than would normally be required, and the number of "inactive" weeks (weeks during which no work was performed) was probably abnormally high. More than two-thirds of the projects studied had one or more weeks of complete inactivity.

Chart 2. Labor Utilization Patterns by Construction Time



The labor utilization pattern of a project represents the percentage distribution by weeks of operation of the total man-hours required for the project. For better presentation of data in the accompanying tables, weeks of operation have been grouped by 4-week intervals.

### One-Unit Projects

As the cost of houses increased, it is clearly evident from the figures in table 1 that the percentage of total man-hours worked during the first few weeks of operation decreased. For the 109 single-unit projects combined, 21.3 percent of the work was performed during the first 4 weeks

<sup>3</sup> Boston, Indianapolis, Knoxville, Lansing, Los Angeles, Milwaukee, Mobile, St. Louis, Seattle-Takoma, Syracuse, and Washington.

<sup>4</sup> See Housing Statistics, 1946 and 1947: Sampling Methods and Survey Techniques, Monthly Labor Review, August 1948 (p. 161).



TABLE 1.—Percentage distribution of man-hours worked in construction of 109 one-family houses, built in single-unit projects by construction cost class, length of construction time, and type of exterior wall material, 1946-47, by weeks of operation

Weeks of operation <sup>1</sup>	Percentage distribution of weekly man-hours worked on units											
	Total—All units		With construction cost of— <sup>2</sup>			With construction time of— <sup>3</sup>					With exterior wall material of— <sup>4</sup>	
	Weekly	Cumulative	Under \$5,250	\$5,250 to \$9,249	\$9,250 and over	Less than 14 weeks	14-26 weeks	27-39 weeks	40-52 weeks	More than 52 weeks	Frame	Masonry
1-4 weeks.....	21.3	21.3	45.0	21.2	12.2	44.6	20.2	18.0	8.1	8.2	24.3	17.6
5-8 weeks.....	21.7	43.0	26.2	22.0	19.7	39.5	22.7	14.9	11.3	11.0	24.9	20.1
9-12 weeks.....	13.6	56.6	8.5	14.0	15.2	15.3	19.5	10.5	6.9	10.5	15.6	12.9
13-16 weeks.....	11.0	67.6	6.8	10.8	12.9	.6	18.9	11.3	8.7	6.7	10.3	12.1
17-20 weeks.....	7.9	75.5	4.2	9.0	9.8	0	11.9	10.5	6.3	6.5	7.4	8.9
21-24 weeks.....	6.8	82.3	1.2	5.9	8.2	0	5.7	11.7	9.2	6.1	4.1	6.5
25-28 weeks.....	5.3	87.6	2.1	6.0	5.6	0	1.1	12.7	8.6	6.3	4.6	5.8
29-32 weeks.....	3.1	90.7	1.7	3.4	4.3	0	0	5.1	8.5	4.6	2.4	3.8
33-36 weeks.....	2.9	93.6	.6	2.7	3.3	0	0	4.1	8.5	8.0	2.2	3.7
37-40 weeks.....	2.7	96.3	1.4	2.6	3.4	0	0	1.2	10.3	8.6	1.8	3.7
41-44 weeks.....	1.7	98.0	1.0	1.4	1.9	0	0	0	6.6	6.8	1.4	1.8
45-48 weeks.....	1.2	99.2	1.3	.7	1.7	0	0	0	5.2	4.1	.5	1.8
49-52 weeks.....	.5	99.7	0	.3	.8	0	0	0	1.8	3.4	.5	.6
Over 52 weeks.....	.3	100.0	0	0	1.0	0	0	0	0	9.2	0	.7
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of units.....	109		27	52	30	27	35	24	19	4	49	41
Average construction cost.....	\$7,400					\$5,250	\$7,325	\$8,150	\$9,475		\$7,000	\$8,450

<sup>1</sup> Weeks of operation are pay-roll weeks ending between start and completion of construction, regardless of amount of work performed during any individual week.

<sup>2</sup> Construction cost includes cost of labor, materials, all subcontracted work, and that part of the contractor's overhead and profit chargeable directly to project; excludes land and development costs.

<sup>3</sup> Number of weeks from start to completion of construction.

<sup>4</sup> Excludes 7 stucco units and 12 units of all other types for which data are not shown separately. Units classified as follows: Frame—all units with exterior walls of wood, wood siding, shingles, boxing, etc.; Masonry—all units with exterior wall material of brick, stone, tile, concrete block, cinder block, etc., including masonry veneer.

of operation. The peak period of labor input for the houses in the lowest cost class (under \$5,250) was the first 4-week period, when nearly half of the work was done. For the other two classes, it was the second period, when less than a fourth of the work was done on houses costing \$5,250 to \$9,249 and less than an eighth on those costing \$9,250 or more.

The total length of time that single-unit projects were under construction appears also to have been directly related to the size and quality of the houses being built, as indicated by construction cost. (The four projects that ran longer than a year because of exceptionally frequent and long delays in construction are not considered typical in this comparison.) The median length of construction time for the 109 single-unit projects was 24 weeks (table 2). More than three-fourths of the units costing less than \$5,250 were completed in 20 weeks or less, while fewer than a third of those costing from \$5,250 to \$9,249, and about a fifth of those costing \$9,250 or more, were completed in a corresponding length of time. It is also interesting to note that on the more expensive houses, which required longer to build, labor input did not rise to a sharp peak and taper off quickly as it did on the cheaper houses, but increased more

gradually to a level which, with some minor fluctuations, was sustained until the house neared completion.

TABLE 2.—Number and percent of 109 one-family houses built as single-unit projects, 1946-47, by construction cost class, and by length of construction time

Number of calendar weeks from start to completion of construction	All units		Units with construction cost of— <sup>1</sup>							
			Under \$5,250		\$5,250-\$9,249		\$9,250 and over			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1-4 weeks.....	2	1.8	2	7.4	0	0	0	0	0	0
5-8 weeks.....	10	9.2	9	33.3	1	1.9	0	0	0	0
9-12 weeks.....	11	10.0	5	18.6	5	9.6	1	3.3	1	3.3
13-16 weeks.....	10	9.2	3	11.1	3	5.8	4	13.3	4	13.3
17-20 weeks.....	9	8.3	2	7.4	6	11.5	1	3.3	1	3.3
21-24 weeks.....	14	12.9	2	7.4	7	13.5	5	16.7	5	16.7
25-28 weeks.....	13	11.9	1	3.7	7	13.5	5	16.7	5	16.7
29-32 weeks.....	5	4.6	1	3.7	4	7.8	0	0	0	0
33-36 weeks.....	6	5.5	0	0	5	9.6	1	3.3	1	3.3
37-40 weeks.....	8	7.3	0	0	6	11.5	2	6.7	2	6.7
41-44 weeks.....	6	5.5	0	0	2	3.8	4	13.3	4	13.3
45-48 weeks.....	6	5.5	2	7.4	3	5.8	1	3.3	1	3.3
49-52 weeks.....	5	4.6	0	0	1	1.9	4	13.3	4	13.3
Over 52 weeks.....	4	3.7	0	0	2	3.8	2	6.8	2	6.8
Total—All units.....	109	100.0	27	100.0	52	100.0	30	100.0	30	100.0
Median length of construction time (weeks) <sup>2</sup> .....	24		9		27		27		27	

<sup>1</sup> Construction cost includes cost of labor, materials, all subcontracted work, and that part of contractor's overhead and profit chargeable directly to project; excludes land and development costs.

<sup>2</sup> Based on actual tally of projects.

Although considerable variation in the labor utilization patterns was shown when the houses were grouped according to type of exterior wall material, it appears that other factors had more influence than type of material. Work on the frame units got under way faster than on the masonry units—man-hours worked in the first 4 weeks were 24.3 percent of the total as against 17.6 percent. Inasmuch as the average construction cost of the masonry units was \$1,450 higher than that of the frame units, this pattern was to be expected. However, labor input on the masonry units was accelerated subsequently so that there was only a slight difference in the stage of construction (i. e., the percent of total man-hours worked) reached by both groups at the end of 28 weeks.

### Multiple-Unit Projects

Inasmuch as size of project was the principal determining factor in the length of the construction period and the pattern of labor utilization for multiple-unit projects, the data presented in table 3 for these projects are not shown by cost classes or by types of exterior wall material.

TABLE 3.—Percentage distribution by weeks of operation of man-hours worked in the construction of 1,768 one-family houses built in multiple-unit projects, 1946-47<sup>1</sup>

Weeks of operation <sup>2</sup>	Total—all projects		Percentage distribution of weekly man-hours worked on units in projects of—		
	Weekly	Cumulative	2-9 units	10-24 units	25 or more units
1-4 weeks	3.7	3.7	11.5	5.0	2.1
5-8 weeks	5.5	9.2	15.3	8.3	3.7
9-12 weeks	5.9	15.1	12.3	8.4	4.6
13-16 weeks	7.0	22.1	11.2	8.8	6.1
17-20 weeks	8.5	30.6	10.5	11.3	7.9
21-24 weeks	8.8	39.4	10.5	8.1	8.3
25-28 weeks	6.8	46.2	7.4	9.6	6.4
29-32 weeks	7.9	54.1	6.4	8.0	8.0
33-36 weeks	7.4	61.5	5.3	6.4	7.9
37-40 weeks	6.3	67.8	3.2	6.4	7.2
41-44 weeks	6.5	74.3	1.6	4.4	7.5
45-48 weeks	5.8	80.1	1.5	4.2	6.6
49-52 weeks	4.2	84.3	1.5	2.9	4.9
Over 52 weeks	15.7	100.0	1.8	8.2	18.8
Total—All weeks	100.0	100.0	100.0	100.0	100.0
Number of units	1,768		205	167	1,396

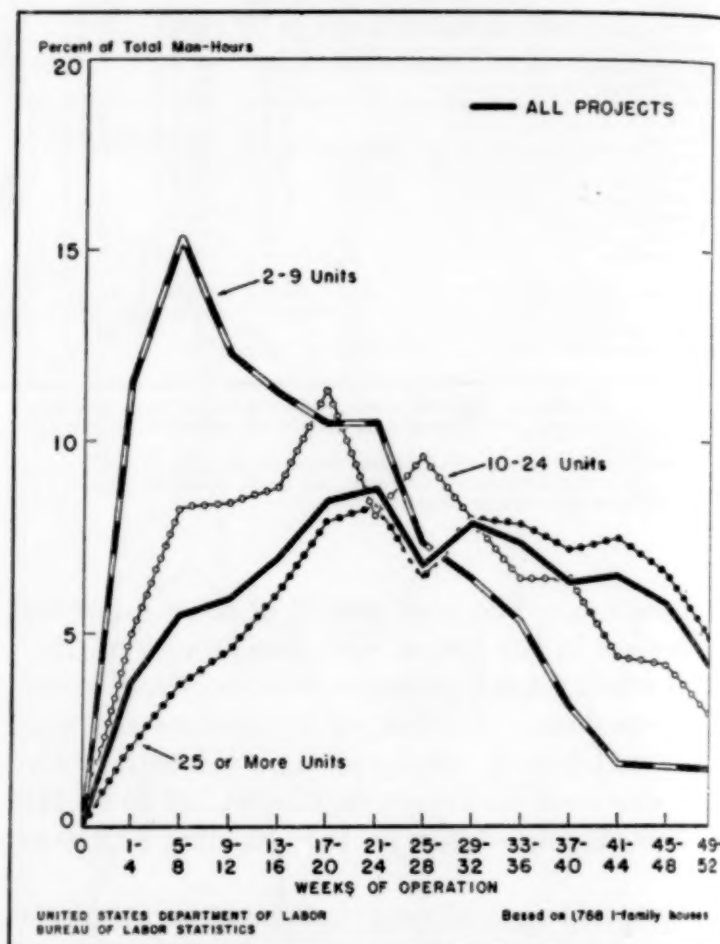
<sup>1</sup> Based on 1,768 units in 82 projects.

<sup>2</sup> Weeks of operation are pay-roll weeks ending between start and completion of construction, regardless of amount of work performed during any individual week.

The average cost of the units included in the 82 multiple-unit projects studied was \$7,750 and for more than two-thirds it ranged from \$7,000 to

\$8,500. The labor-utilization pattern for the smallest projects—2 to 9 units—resembled that for one-unit projects in many respects, a high peak being reached early in the construction period and dropping rather sharply thereafter. Half of the work on the smaller projects was

Chart 3. Labor Utilization Patterns by Size of Project



done by the end of the 16th week. By contrast, work on projects of 10 or more units was just well started by the end of the sixteenth week. A longer construction period for the larger projects was also characterized by the amount of work remaining to be completed at the end of a year of operation. For projects of 2 to 9 units, less than 2 percent of the work remained at the end of a year as compared with nearly 19 percent for those of 25 or more units.

### Inactive Time

Although the projects studied were built during a period of unusual delays in construction, more than 30 percent, containing 55 percent of the units, had no weeks of complete inactivity. For the purposes of this study, an inactive week was



defined as a pay-roll week during which no work at all was performed. Weeks in which some time was lost, as indicated by a substantial drop in man-hours from previous levels, but during which some work was performed were not considered as inactive weeks. A somewhat higher percentage of inactive weeks on projects in northern areas than on those in the South and on the West Coast is probably attributable to inclement weather.

As size of project increased, the percentage of inactive weeks declined. For the 191 projects combined, comprising 1,877 single-family houses, inactive weeks constituted 16.3 percent of the total weeks of operation. By project size, the percentage of inactive weeks was as follows:

Projects of—	Percent of total weeks of operation
1 unit.....	24.6
2 to 9 units.....	14.0
10 to 24 units.....	2.1
25 or more units.....	1.2

The lower incidence of complete shut-downs on large-scale operations is probably due to the fact that, at any given time, units are in various stages of construction. This makes it possible to continue some kinds of work even though shortages of materials or labor, or inclement weather, may cause a delay in other kinds.

### Timing of Specified Occupations

A distribution of the man-hours worked by 8 major occupational groups is given in table 4 by stage of construction for 90 one-unit projects. In order to combine the data for these projects, the man-hours for each project were divided into 10 consecutive periods, each period representing one-tenth of the total man-hours worked. This made it possible to combine the man-hours for the various projects even though the construction periods (number of weeks) differed in length.

On both the frame and the masonry houses, carpenters worked a higher proportion of the total man-hours than any of the other trades; laborers were the second highest. On masonry houses, they exceeded bricklayers and masons in the proportion of total man-hours worked, largely because of their work during the early stages of construction in preparing for the erection of walls. Plasterer hours were highest during the eighth period for the masonry units and during the seventh period for the frame units. Painter hours were less than 6 percent of the total hours for masonry units and about 10 percent for frame units; in the final stages, the proportion of total man-hours worked by painters was second only to that of carpenters on both types of houses.

TABLE 5.—Percent of total man-hours worked by specified occupations in the construction of 90 1-family houses built as single-unit projects, by stage of construction, 1946-47

Percent of man-hours worked by—	Stage of construction <sup>1</sup>										
	Total all stages	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth
41 masonry units <sup>2</sup>											
Carpenters <sup>3</sup> .....	38.4	27.9	44.7	42.5	44.2	49.9	40.4	39.4	31.1	31.6	33.7
Laborers.....	16.6	32.4	20.7	17.0	12.4	14.0	15.3	14.7	14.7	15.2	14.0
Bricklayers and masons <sup>4</sup> .....	15.6	25.9	22.4	23.6	21.6	10.8	10.0	12.6	12.5	11.1	3.9
Painters <sup>3</sup> .....	5.8	0	0	.5	1.0	1.0	2.9	5.4	12.8	16.3	16.3
Plasterers <sup>3</sup> .....	4.1	0	0	0	.9	2.5	6.2	7.4	8.6	6.7	6.1
Plumbers <sup>3</sup> .....	4.1	.8	3.0	3.1	3.9	4.3	5.0	5.0	5.1	5.4	7.3
Electricians <sup>3</sup> .....	2.2	.4	.9	1.0	1.3	3.4	3.0	2.1	2.3	3.7	5.3
All other workers.....	13.2	12.6	8.3	12.3	14.7	14.1	17.2	13.4	12.9	10.0	13.4
All workers.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
49 frame units <sup>4</sup>											
Carpenters <sup>3</sup> .....	53.1	42.3	63.3	65.4	66.3	54.4	52.3	52.9	51.2	48.4	33.2
Laborers.....	9.0	16.8	10.8	6.9	6.0	7.5	8.0	6.5	7.4	6.6	6.7
Bricklayers and masons <sup>4</sup> .....	6.7	25.2	15.9	4.5	3.2	3.0	2.9	2.3	3.2	2.4	2.1
Painters <sup>3</sup> .....	9.6	.2	.8	7.2	7.4	9.3	12.4	11.4	11.3	17.5	31.3
Plasterers <sup>3</sup> .....	3.5	0	0	.3	1.8	4.4	6.6	8.7	8.2	4.4	1.9
Plumbers <sup>3</sup> .....	5.5	1.7	2.9	5.4	7.5	7.4	5.5	4.8	4.5	4.8	5.9
Electricians <sup>3</sup> .....	2.6	.2	.9	1.8	4.1	2.7	2.0	3.6	5.0	4.3	4.2
All other workers.....	10.0	13.6	5.4	8.5	3.7	11.3	10.3	9.8	9.2	11.6	14.7
All workers.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> Each stage represents one-tenth of total man-hours worked on all projects. Total man-hours on each individual project were broken down into consecutive tenths and corresponding tenths for all projects were added to give a composite picture of the occupational distribution as construction progressed in terms of man-hours expended.

<sup>2</sup> Includes units with exterior wall material of brick, stone, tile, concrete block, cinder block, etc.; also masonry veneer.

<sup>3</sup> Includes skilled workers, working foremen, and apprentices.

<sup>4</sup> Includes units with exterior wall material of wood, wood siding, shingles, boxing, etc.

## Injury Rates in Manufacturing: Fourth Quarter, 1948

WORK INJURIES in manufacturing reached a new low in the fourth quarter of 1948. The injury-frequency rate was the lowest recorded in the 6 years for which quarterly data are available. Although employment was slightly higher than in previous quarters, this decline in the frequency rate also resulted in a decrease in the total number of work injuries. Preliminary reports indicate that the final figures for 1948 will show the lowest volume of work injuries in manufacturing since 1941, and the lowest injury-frequency rate since 1940.

The drop in injury rates during the fourth quarter was partially seasonal; however, the rates have been consistently lower throughout 1948 than in any recent previous year. The fourth-quarter rate of 12.3 was considerably lower than the averages of 14.1, 13.5, and 13.7 for the first three quarters of 1948; it was 14 percent below the last quarter of 1947. The cumulative rate for the entire year 1948 for manufacturing firms included in the quarterly survey also showed a 14-percent decrease from the comparable figure for 1947. December, which showed the usual seasonal drop in injuries, had the lowest rate—11.5—ever reported for any month.

An estimated 104,000 workers in manufacturing establishments were disabled for 1 or more days because of work injuries during the fourth quarter of 1948. This is 5,800 below the 1948 third quarter estimate, and 13,900 below the fourth quarter of 1947. Over 400 of the injured workers died as a result of their injuries, and about 6,400 others were known to have experienced some permanent physical impairment. Some of those cases classified as temporary disabilities at the time of the report may later become more serious, requiring a slight increase in these estimates.

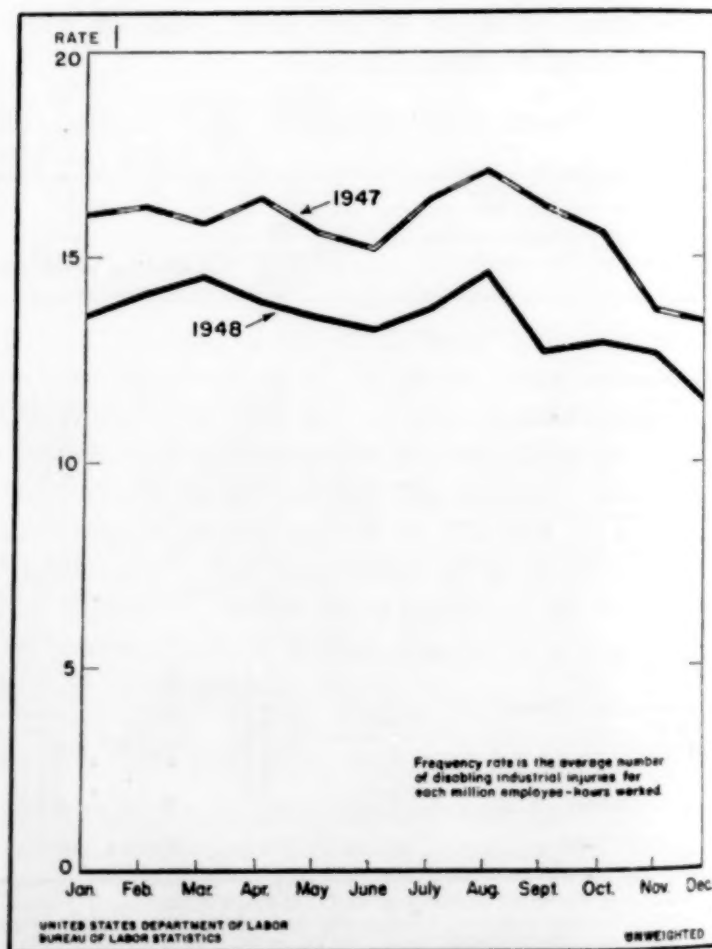
About 2,080,000 man-days were lost during the quarter by these injured workers. At current wage levels, this represents an estimated value of about 21 million dollars in wages—a loss paid partially by the employers in the form of workmen's compensation and partially absorbed by the injured workers because of reduced income during the period of disability. This, however,

is only a portion of the total cost which will accrue from these injuries. It includes no allowance for the continuing economic losses arising from the many deaths and permanent impairments, or for the hospital, medical, and other costs incidental to the treatment of the injuries.

Over half of the 117 manufacturing industries for which comparable data were available had significantly lower injury-frequency rates in the fourth than in the third quarter of 1948. Only 17 industries showed higher rates and 34 recorded variations of less than one frequency-rate point.

The most significant decreases in frequency rates occurred in integrated saw and planing mills, from 63.0 to 53.4; plywood mills, from 35.9 to 26.6; leather tanning, from 26.1 to 17.2; planing mills (not operated in connection with sawmills), from 36.6 to 27.9; wooden containers, from 44.2 to 36.8; and in canning and preserving, from 15.9 to 9.6. In contrast, the miscellaneous textile goods industry showed an increase from 22.3 in the third to 30.5 in the fourth quarter;

**Injury-Frequency Rates in Manufacturing,  
1947 and 1948**



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miscellaneous wood products, from 20.1 to 26.5; and sheet-metal work, from 16.1 to 22.0.

Only two industries showed injury-frequency rates of over 40: Integrated saw and planing mills, 53.4; and sawmills, 52.4.

Outstandingly low rates were reported by the following industries: Synthetic rubber, 1.0; compressed and liquefied gases, 2.2; explosives, 2.3; electric lamps (bulbs), 2.5; optical and ophthalmic goods, 3.4; and synthetic textile fibres, 3.8.

Industrial injury-frequency rates for selected manufacturing industries, fourth quarter, 1948, with cumulative rates for 1948<sup>1</sup>

Industry <sup>2</sup>	Fourth quarter					Frequency rate
	Number of establishments <sup>3</sup>	Frequency rate <sup>4</sup> for—				1948: January-December cumulative (preliminary) <sup>4</sup>
		October	November	December	Fourth quarter	
Apparel:						
Clothing, men's and boys'	338	5.0	4.8	5.2	5.0	6.7
Clothing, women's and children's	270	3.0	4.2	5.2	4.1	4.4
Apparel and accessories, not elsewhere classified	33	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	7.2	7.7
Trimmings and fabricated textile products, not elsewhere classified	68	10.4	12.4	13.8	12.2	12.3
Chemicals:						
Compressed and liquefied gases	35	1.9	2.8	1.8	2.2	6.3
Drugs, toiletries, and insecticides	67	9.6	9.0	10.1	9.6	10.0
Explosives	41	2.5	3.8	.7	2.3	3.2
Industrial chemicals	182	9.8	8.2	8.3	8.8	9.4
Paints, varnishes, and colors	61	13.5	11.4	9.2	11.4	11.0
Plastic materials, except rubber	26	6.2	5.3	5.9	5.8	5.7
Soap and glycerin	37	5.6	6.1	5.7	5.8	5.7
Synthetic rubber	19	1.0	1.0	1.0	1.0	1.6
Synthetic textile fibers	19	4.2	2.4	4.5	3.8	3.4
Chemical products, not elsewhere classified	53	4.2	10.8	6.9	7.3	10.3
Electrical equipment:						
Automotive electrical equipment	25	23.8	14.9	17.6	18.8	18.1
Batteries	28	23.3	23.9	15.5	21.1	20.4
Communication and signaling equipment, except radio	22	4.6	5.3	5.4	5.1	4.9
Electrical appliances	31	18.3	13.3	11.7	14.4	14.1
Electrical equipment for industrial use	240	7.7	5.8	6.4	6.6	7.4
Electric lamps (bulbs)	16	2.3	2.6	2.6	2.5	2.9
Insulated wire and cable	27	13.3	14.9	13.9	14.1	14.3
Radios and phonographs	108	5.6	5.8	3.6	5.0	5.3
Electrical equipment, not elsewhere classified	16	6.4	4.1	3.7	4.7	5.3
Food:						
Baking	23	15.7	19.5	14.2	16.4	15.6
Canning and preserving	34	13.5	6.7	6.9	9.6	13.4
Confectionery	32	11.9	9.3	10.7	10.7	13.0
Dairy products	127	19.0	22.5	18.6	20.0	22.4
Distilleries	51	7.9	6.7	6.5	7.1	7.7
Flour, feed, and grain-mill products	16	19.5	11.0	5.9	12.2	10.5
Slaughtering and meat packing	306	16.5	15.5	16.0	16.3	19.5
Food products, not elsewhere classified	30	18.0	15.8	13.4	15.8	13.6
Furniture and lumber products:						
Furniture, wood	80	21.2	20.1	18.3	19.9	21.7
Mattresses and bedsprings	105	14.2	14.8	13.5	14.2	17.7
Wooden containers	198	40.8	38.2	30.8	36.8	40.2
Miscellaneous wood products, not elsewhere classified	103	23.7	30.9	25.2	26.5	23.8
Iron and steel:						
Boils, nuts, washers, and rivets	43	17.2	13.4	15.4	15.4	16.6
Cold-finished steel	34	19.0	13.6	15.7	16.1	20.0
Cutlery and edge tools	27	14.0	17.2	18.6	16.5	16.0
Fabricated structural steel	206	16.7	14.4	16.4	15.9	20.8
Forgings, iron and steel	108	19.3	18.1	17.0	18.1	18.7
Foundries, iron	338	34.7	33.6	30.2	32.8	36.8
Foundries, steel	106	28.6	28.5	25.8	27.6	29.4
Hardware	45	11.3	11.6	14.9	12.7	13.8
Heating equipment, not elsewhere classified	79	28.6	18.9	17.9	22.3	23.6
Iron and steel	150	6.5	7.0	6.7	6.8	7.2
Metal coating and engraving	52	35.2	31.2	20.4	29.0	24.9
Ornamental metal work	44	14.0	19.1	20.3	17.8	20.6
Plate fabrication and boiler-shop products	120	27.2	23.0	27.2	25.8	32.1
Plumbers' supplies	45	16.6	17.6	13.7	16.0	17.4
Screw-machine products	91	18.2	14.0	13.8	15.4	15.6
Sheet-metal work	49	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	22.0	19.7
Stamped and pressed metal products, not elsewhere classified	198	18.9	19.8	17.9	18.8	19.6
Steam fittings and apparatus	48	17.9	14.3	18.1	16.8	16.7
Steel barrels, kegs, drums, and packages	23	15.2	13.2	8.6	12.3	14.4
Steel springs	12	15.2	13.6	19.8	16.3	21.3
Tin cans and other tinware	20	15.8	13.8	13.2	14.4	15.7
Tools, except edge tools	51	12.3	14.9	14.7	14.0	18.3
Wire and wire products	140	16.4	19.0	15.4	16.9	19.1
Wrought pipes, welded and heavy-riveted	15	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	19.6	21.2
Iron and steel products, not elsewhere classified	22	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	18.5	23.7

See footnotes at end of table.

Industrial injury-frequency rates for selected manufacturing industries, fourth quarter, 1948, with cumulative rates for 1948—  
Continued

Industry <sup>1</sup>	Fourth quarter					Frequency rate
	Number of establishments <sup>2</sup>	Frequency rate <sup>3</sup> for—				1948: January-December cumulative (preliminary) <sup>4</sup>
		October	November	December	Fourth quarter	
Leather:						
Boots and shoes, not rubber.....	236	7.6	9.9	8.3	8.6	8.6
Leather.....	35	17.3	14.3	20.0	17.2	24.8
Lumber:						
Millwork, structural.....	211	22.5	24.8	24.2	23.8	27.9
Planing mills.....	73	36.6	23.6	23.5	27.9	39.4
Plywood mills.....	45	23.9	28.1	28.2	26.6	35.7
Sawmills.....	52	53.2	50.9	53.0	52.4	55.6
Integrated saw and planing mills.....	33	59.2	59.2	41.3	53.4	57.0
Machinery, except electric:						
Agricultural machinery and tractors.....	81	17.9	19.2	16.3	17.8	19.4
Bearings, ball and roller.....	31	12.4	15.7	9.4	12.4	15.6
Commercial and household machinery.....	120	10.5	12.2	8.0	10.2	9.5
Construction and mining machinery.....	118	20.4	20.2	17.4	19.3	21.4
Elevators, escalators, and conveyors.....	29	15.6	16.1	12.5	14.7	17.9
Engines and turbines.....	39	9.8	9.3	9.1	9.4	11.8
Food-products machinery.....	57	14.1	17.7	15.5	15.7	18.5
General industrial machinery and equipment, not elsewhere classified.....	180	18.2	15.8	14.9	16.3	18.3
General machine shops (jobbing and repair).....	106	30.3	18.0	15.4	21.3	22.7
Mechanical measuring and controlling instruments.....	51	11.4	10.9	9.6	10.6	12.8
Mechanical power-transmission equipment, except ball and roller bearings.....	70	16.9	18.9	16.4	17.4	18.1
Metalworking machinery.....	418	13.8	12.9	11.8	12.9	13.5
Pumps and compressors.....	78	19.8	15.2	18.4	17.8	18.0
Special-industry machinery, not elsewhere classified.....	126	17.7	17.7	14.9	16.8	20.3
Textile machinery.....	27	11.6	11.3	10.2	11.0	11.7
Nonferrous metals:						
Aluminum and magnesium products.....	25	12.1	16.0	16.8	14.9	19.3
Foundries, nonferrous.....	209	20.4	18.7	14.5	17.9	21.6
Nonferrous basic shapes and forms.....	23	10.8	10.9	10.5	10.7	12.4
Watches, clocks, jewelry, and silverware.....	36	7.1	9.2	7.5	7.9	8.2
Nonferrous metal products, not elsewhere classified.....	80	14.6	15.4	14.7	14.9	14.9
Ordinance:						
Ordinance and accessories.....	16	4.1	5.4	5.0	4.8	4.6
Paper:						
Paper boxes and containers.....	278	19.7	21.7	16.2	19.2	20.1
Paper and pulp.....	342	18.2	18.5	16.6	17.8	19.3
Paper products, not elsewhere classified.....	30	10.2	17.2	11.1	12.7	17.4
Printing:						
Book and job printing.....	58	6.7	9.6	5.5	7.3	8.3
Rubber:						
Rubber boots and shoes.....	16	5.4	4.7	4.7	4.9	5.8
Rubber tires and tubes.....	32	8.1	9.1	6.8	8.0	8.5
Rubber products, not elsewhere classified.....	76	15.6	12.6	13.8	14.0	15.9
Stone, clay, and glass:						
Clay products, structural.....	39	19.4	21.7	23.0	21.4	21.6
Concrete, gypsum, and plaster products.....	128	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	25.0	31.9
Glass.....	42	12.2	13.0	13.4	12.9	13.5
Pottery and related products.....	30	20.9	23.7	18.1	20.8	19.7
Stone, clay, and glass products, not elsewhere classified.....	42	16.3	13.9	14.5	14.9	16.8
Textiles:						
Cotton yarn and textiles.....	187	10.0	9.9	7.5	9.2	9.0
Dyeing and finishing textiles.....	50	10.8	13.9	8.7	11.0	13.4
Knit goods.....	74	10.1	7.1	6.1	7.9	8.5
Rayon, other synthetic, and silk textiles.....	51	10.8	9.6	6.5	9.0	9.1
Woolen and worsted textiles.....	145	12.0	12.8	9.1	11.2	12.6
Miscellaneous textile goods, not elsewhere classified.....	29	33.2	34.5	23.7	30.5	23.3
Transportation equipment:						
Aircraft.....	16	5.3	5.7	6.1	5.7	4.8
Aircraft parts.....	26	6.3	5.2	5.0	5.5	6.2
Motor vehicles.....	101	7.4	8.4	6.7	7.4	8.8
Motor-vehicle parts.....	94	16.3	15.7	14.1	15.4	18.3
Railroad equipment.....	53	16.3	15.7	16.3	16.1	18.9
Shipbuilding and repairs.....	56	19.4	20.9	23.0	21.1	23.9
Miscellaneous manufacturing:						
Fabricated plastic products.....	31	15.4	17.3	9.9	14.2	11.6
Optical and ophthalmic goods.....	17	3.8	3.8	2.5	3.4	3.5
Photographic apparatus and materials.....	27	5.3	4.1	3.7	4.4	5.6
Professional and scientific instruments and supplies.....	60	6.2	4.9	4.3	5.1	6.2
Miscellaneous manufacturing, not elsewhere classified.....	141	13.1	10.6	10.2	11.4	11.9

<sup>1</sup> The average number of disabling work injuries for each million employee-hours worked.

<sup>2</sup> A few industries have been omitted because the monthly coverage did not amount to 1,000,000 or more employee-hours worked.

<sup>3</sup> December.

<sup>4</sup> Computed from all reports received for each month; not based on the same plants in successive months.

<sup>5</sup> Not available.

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<sup>1</sup> Inform  
261, ST49



## The President's Industrial Safety Conference<sup>1</sup>

"ACTION NOW" was the theme of the President's Conference on Industrial Safety which was held in Washington, D. C., March 23-25, 1949. Twelve hundred delegates, including labor, industry, business, government, and community leaders, in attendance at the sessions adopted a program which calls for State conferences on industrial safety and continuation of the President's Conference as "a national organization of cooperating agencies, public and private, dedicated to the prevention of job injuries." Toward this end, the report of the Conference Coordinating Committee, which consists of seven separate reports, was adopted. A Special Committee on Conference reports was assigned the task of making any necessary changes in the Coordinating Committee's report and of reconciling any differences between its several parts, and of releasing the official version within a month.

### Coordinating Committee Report

In introducing its report, the Coordinating Committee stated that over 2 million job accidents a year throughout American industry are a menace to the welfare and economy of the Nation. They cost employers and workers an estimated 4½ billion dollars annually. Since over 90 percent of these accidents are preventable, the President's Conference on Industrial Safety pledges itself to united action to reduce these tragic tolls through applying everywhere the methods which experience has proved to be practical and effective. The report added that safety, like freedom, is everybody's business. There is no single cause or cure for industrial accidents. Accidents do not respect size or kind of business but the majority occur in the 2½ million small firms which employ the smaller part of the work force. Efforts must be concentrated in these small firms to demonstrate the value of tested safety techniques. Existing gains must be kept and improved. Accident prevention saves lives, suffering, and economic loss, and its byproducts are better industrial relations,

higher production efficiency, and better citizenship. Separate action of public and private organizations is not enough. Only cooperative action will reach every job site, and thereby bring about the necessary improvements.

The fundamentals of the program recommended by the seven technical committees were summarized by the Coordinating Committee, in part, as follows.

**Hazard Control.** The close relationship between safety and efficiency is clear if accident causes and costs are closely examined. Every accident is a symptom of something wrong in equipment, processes, or methods. The elimination of physical hazards is a first step in building an effective safety program. Therefore, it was recommended that (1) engineering control of hazards should be taken into account in planning, construction, and lay-out; (2) inspection, job analysis, and accident investigation should be more widespread; (3) control of machinery and mechanical equipment hazards should begin at the design stage; (4) development of American Safety Standards should be continued through cooperative participation by all interested groups; (5) accident control programs for industrial operations should be based upon accepted engineering standards; (6) the design engineer should take account of man's physical limitations in machine development; and (7) environmental influences, such as noise and temperatures, should be further studied and controlled.

**Safe Behavior.** Before job injuries can be reduced to a minimum, each worker must be educated and trained to make his behavior reasonably safe at all times. To meet this goal, training should be included in all phases of education as well as "on the job," as outlined in later sections of this report. It was recommended that more study should be devoted to the personal or human factors in accident causation in order to establish satisfactory and dependable methods of training and control and to give greater care to physical, mental, and emotional differences between individuals in the selection and placement of workers.

**Plant Safety Program and Organization.** The keystone of accident control, stressed by several committees, is the prevention of work injuries as an

<sup>1</sup> Information is from U. S. Department of Labor releases ST49-260, ST49-261, ST49-262, and ST49-268.

integral part of all plant operations. An organized and continuing safety program is required under which (1) top management accepts full responsibility and support for rendering workplaces and work methods safe; (2) a definite safety policy is formulated and made thoroughly clear to every employee; (3) accident records are maintained to show frequency rates, sources, causes, and costs; (4) tested and accepted safety techniques are incorporated in each program; (5) the first step is the correction of physical hazards, followed by periodic inspection of premises and equipment; (6) foremen as the front line of management are thoroughly trained in safety fundamentals to aid them in worker training and supervision; (7) every worker receives adequate training in the safe method of doing his job; (8) job safety analysis is fully utilized to provide a basis for safety education of workers; and (9) definite provisions are established for management-labor cooperation in the safety program.

*Organizations and Institutions.* According to the report, the Nation's educational system, through its various levels, is the best organized agency to teach safety fundamentals to the largest percentage of the population. It is therefore recommended that safety courses should be incorporated at all levels of education, that is, from the elementary schools through engineering colleges.

The States, the report continues, by reason of their legal responsibilities for safety and their proximity to the safety problem, have an opportunity to reach every establishment, large and small. Each State should enact a basic safety law and should empower its labor department to promulgate safety codes and revise these codes frequently to offer protection against the changing hazards of industry. Other requirements listed are consultative and advisory services to management and labor for the promotion of safety; more adequate appropriations than are currently made for State labor department safety programs; and the collection and analysis of data to show the number and kind of work injuries, their industry distribution, causes, costs, trends, and rates.

The Federal Government should provide leadership and stimulation to the national safety effort, as well as information and technical and advisory services on accidents and their prevention. Specific recommendations were that the President's

Conference on Industrial Safety should call upon the safety advisory services of all Federal agencies to assure the full utilization of their collective experience; all Federal departments and agencies should accelerate accident prevention programs for their own employees; the United States Department of Labor, through the Bureau of Labor Standards, should continue to provide upon request of the States, management, labor, and private safety agencies, technical advisory services, training, and assistance in developing sound safety laws, regulations, and administrative practices and in disseminating technical safety information. Through the Bureau of Labor Statistics, the Department should provide more detailed information about work injuries, their causes, costs, and consequences and extend assistance to State labor departments in developing more State accident figures.

Insurance companies have intimate, continuous contact with a large majority of large and small employers, and can do much to arouse their interest and guide their efforts. These companies should review and expand their safety services to industry (especially to small plants) in the light of all the recommendations of the President's Conference and its committees. The associations of insurance companies should encourage and assist their member companies in the rendering of such services, and support and assist in applying Conference recommendations on the national and State level.

National, State, and local associations of many kinds can all contribute. It is therefore recommended that (1) trade and industry associations provide to their members such safety services as a few of them have already developed (for example, in the collection, analysis, and interpretation of accident records); (2) labor unions and their locals maintain or establish safety organizations and, where practicable, safety directors at the international level, and trained representatives at regional, district, and local levels, as well as conduct safety training courses, arouse and maintain the interest of their members in safe methods of work, and cooperate with management in all constructive safety efforts; (3) engineering, medical, and other professional societies recognize their opportunity and responsibility in this field; (4) national and local safety councils, fire protection, and health organizations continue and expand



their activities and services; and (5) that all of these agencies and the governmental and insurance associations cooperate closely with one another and with all other agencies in the fulfillment of the common objective—safety throughout the industries of the United States.

### Statement of the President

President Truman welcomed the delegates to the conference with a statement on the importance of the long-range cooperative action to improve industrial safety, which the delegates had met to consider. He stated: "The job of reducing industrial accidents is primarily a job for employers and workers. They are the men and women who bear directly the cost and suffering of unnecessary accidents. \* \* \* Insofar as governmental action is concerned, the State governments have the principal responsibility for helping to make workplaces safe. \* \* \* I hope the chief executive of each State will take a personal interest in the success of this industrial safety program. Many of the States have already made remarkable progress. \* \* \* I promise you all the help that the Federal Government can give. The role of the Federal Government, as I see it, is primarily to stimulate cooperation for safety and to encourage the use of the best methods and standards. \* \* \* In addition, I have recommended that the Congress authorize Federal grants to State labor agencies to strengthen their industrial safety activities. \* \* \* The plain fact is that our Nation cannot afford the needless loss of skilled workers if we are to produce for prosperity in this country and for peace abroad."

The President stressed the emphasis placed upon the value of human life above private profit. "There are other countries, however, in which this is not the case—even today. Those countries live under a totalitarian system where men are thought of as tools of the state. As a consequence, there is indifference to pain and human suffering. This is demonstrated most clearly in the slave labor camps where the bodies of men are deliberately destroyed by inhuman conditions of labor."

### Statement of Secretary of Labor

Secretary of Labor Maurice J. Tobin, general chairman of the conference, in addressing the

delegates said, in part: "This morning you heard the President's call to action. No one has ever asked you or me to serve a more worthy cause. And never, I venture to think, has there been assembled under one roof more experience, more interest or more capacity to serve that cause. That is well, for safety, like freedom, is everybody's business."

He spoke of the contribution made to the cause of safety by all who participated in the preparatory work for and in the current conference and in the preliminary sessions held in September 1948.<sup>2</sup> Referring to the sacrifices in time and money made by the Coordinating Committee, in particular, he added:

"This splendid cooperative effort is in the best American tradition and a phenomenon we are likely to take too much for granted."

The Secretary pledged the full cooperation of the Federal Government in accident prevention, and continued:

"As the President and various State officials have repeatedly stressed, the key to success lies in the States which carry basic responsibility for rendering workplaces safe. They are in a strategic position to reach smaller establishments where at least 70 percent of the accidents occur. The President has expressed the hope that the Governors of the several States would mobilize the States' resources to promote safety as he had endeavored to do at the national level. As a former Governor, I am convinced of the value of conferences of leading State figures to promote accepted goals. I hope all of you here will consider carefully the advisability of such a conference of management, labor, and safety authorities in your State. If you are convinced of its soundness, I hope you will offer your Governor your wholehearted cooperation."

With regard to workmen's compensation, the Secretary warned:

"We must not fail either to keep the other side of the shield bright. Compensation laws for the injuries we do not prevent need to cover all workers instead of only about half of them as at present. They should provide adequate medical care and benefits that really reflect two-thirds of present earning power. At today's wage levels, maximum benefit limitations probably provide no

<sup>2</sup> For a discussion of the September 27-29, 1948, sessions, see *Monthly Labor Review*, issue of November 1948 (p. 508).

more than half the average worker's weekly earnings. Through both the Federal and State governments we must be sure our funds and services really provide for the early and prompt rehabilitation of injured workers. They should be helped back to work at maximum skill and at least possible loss of earning power."

## Work of Emergency Boards of Inquiry in 1948<sup>1</sup>

BOARDS OF INQUIRY established by the President under the national emergency provisions of the Labor Management Relations (Taft-Hartley) Act of 1947, investigated seven disputes in 1948. In each instance, operations are traced chronologically in the following record from the date that the President named the members of the board through final settlement of the individual dispute. These summaries afford an opportunity to review the interplay of the work done by the boards of inquiry, by labor and management, and by public agencies in settling the major grievances which threatened national health or safety.

*Atomic Energy Dispute: Atomic Trades and Labor Council (AFL), and Carbide and Carbon Chemicals Corp.*

MARCH 5: Board of inquiry appointed by the President to investigate and report on the labor dispute at Oak Ridge National Laboratory over wage adjustments and retention of sick-leave benefits. Members—John Lord O'Brian, New York and Washington attorney, chairman; C. Canby Balderston, dean of Wharton School of Finance and Commerce, University of Pennsylvania; and Stanley F. Teele, assistant dean of Harvard Graduate School of Business Administration.

MARCH 15: Board's first report submitted to the President; it found that the issues in dispute remained unsettled and the threat of strike unaltered.

MARCH 19: Department of Justice requested and obtained injunction from the United States District Court of East Tennessee.

MARCH 24: Board of inquiry reconvened by the President.

MAY 18: Board's second report submitted to the President, containing a statement of employer's last offer and stating that positions of the parties remained unaltered and dispute unsettled.

JUNE 1-2: National Labor Relations Board conducted a secret ballot to ascertain whether workers wished to accept final offer of the employer. By a vote of 771 to 26 the employer's last offer was rejected.

JUNE 11: Injunction dissolved by court upon motion of Attorney General.

JUNE 15: Agreement by parties reached on the terms of a new contract, which granted workers hourly wage increases from 6½ to 40½ cents retroactive to December 18, 1947, and sick-leave benefits, varying in amounts according to years of service.

JUNE 18: The President reported to Congress on the dispute and recommended that special study be given to the problem of peaceful and orderly settlement of labor disputes in Government-owned, privately operated atomic energy installations. He proposed establishment of a commission to study possible need of special legislation to avert labor shut-downs in atomic energy plants. Members were to be appointed with the advice of the Atomic Energy Commission and the Joint Committee on Atomic Energy.

*Meat-Packing Dispute: United Packinghouse Workers of America (CIO), and Five Major Meat-Packing Firms.*

MARCH 15: Board of inquiry appointed by the President to investigate the dispute in the meat-packing industry over the union's demand for increased wages. Members—Nathan P. Feinsinger, professor of law, University of Wisconsin, chairman; Pearce Davis, Department of Business and Economics, Illinois Institute of Technology; and Walter V. Schaefer, professor of law, Northwestern University Law School.

MARCH 16: Strike began in plants of the five companies in 20 States. Approximately 83,000 workers involved.

APRIL 8: Report of board submitted to the President setting forth and analyzing the position of the parties.

MAY 21: Strike terminated at plants of four of the larger companies following the union's acceptance of a 9-cent hourly wage increase.

JUNE 5: Strike was ended at Wilson & Co. under approximately the same terms.

*Bituminous-Coal Miners' Pension Dispute: United Mine Workers of America (Ind.), and Bituminous-Coal Mine Operators.*

MARCH 15: Work stoppage began. Within a few days approximately 320,000 workers were involved.

MARCH 23: Board of inquiry appointed by the President. Members—Federal Judge Sherman Minton, chairman; George W. Taylor, Wharton School of Finance and Commerce, University of Pennsylvania; Mark Ethridge, publisher of the Louisville Courier Journal. Principal issue was the union's charge that employers had failed to set up a pension plan, as provided for in the contract of July 1947.

MARCH 31: Board report submitted to the President, finding that action of union president by communications to UMW officers and members induced miners to stop work in a concerted fashion and that stoppage was not

<sup>1</sup> Prepared in the Division of Industrial Relations by Loretto R. Nolan.



independent action by miners acting individually and separately.

APRIL 3: A 10-day restraining order issued by United States District Court for District of Columbia.

APRIL 10: The Speaker of the House of Representatives suggested Senator Styles Bridges of New Hampshire as the neutral member of the board of trustees. This was acceptable to the union and industry representatives of the board of trustees.

APRIL 12: Senator Bridges proposed a plan whereby pensions of \$100 a month were to be paid to members of the UMWA, who, on and after May 29, 1946, had completed 20 years' service in the mines and had reached 62 years of age. This plan was accepted and declared adopted, the operators' trustee dissenting.

APRIL 19: The court found the UMWA president and the union guilty of both criminal and civil contempt of court, resulting in fines, on the criminal charges, of \$20,000 against John L. Lewis, president, and \$1,400,000 against the union.

APRIL 21: An 80-day injunction issued by the court, forbidding continuance or resumption of a Nation-wide coal strike.

APRIL 24-26: Most miners returned to work.

JUNE 23: The court dissolved the injunction which had been in effect since April 21.

*Telephone Dispute: American Union of Telephone Workers (CIO), and American Telephone & Telegraph Co. (Long Lines Division).*

MAY 18: Board of inquiry appointed by the President. Members—Sumner H. Schlichter of Harvard University, chairman; Charles A. Horsky, attorney of Washington, D. C.; and Aaron Horwitz, industrial relations expert of New York City. The Board to report by June 8. Principal issues: Demands for increased wages and changes in working rules.

MAY 25: Formal hearings scheduled to begin were postponed until June 8.

JUNE 4: The company and union signed a 21-month agreement, which did not provide for general wage increase but provided for improvements in working conditions and for reopening of wage question at any time.

*Maritime Industry Dispute—Atlantic, Pacific, and Gulf Coasts, and Great Lakes: Maritime Unions,<sup>2</sup> and Shipping Companies.*

JUNE 3: Board of inquiry appointed by the President. Members—Harry Shulman of Yale University Law School, chairman; Andrew Jackson, attorney, New York City; Arthur P. Allen, University of California Institute of Industrial Relations; Jesse Freidin, attorney,

New York City; George Cheney, San Diego labor relations consultant. Principal issues were higher wages and retention of union hiring halls.<sup>3</sup> Board hearings held concurrently in New York and San Francisco.

JUNE 11: Board report submitted to the President.

JUNE 14: Temporary restraining orders issued by Federal District courts in New York, San Francisco, and Cleveland.

JUNE 22: Federal District courts in San Francisco and Cleveland issued second 10-day restraining orders.

JUNE 23: The Federal District Court in New York issued an 80-day injunction barring strikes of maritime workers on Atlantic and Gulf coasts.

JUNE 30: The court in Cleveland issued an 80-day injunction covering Great Lakes area.

JULY 2: The court in San Francisco issued an 80-day injunction covering Pacific Coast area.

AUGUST 10: Board reconvened, with some members sitting in San Francisco.

AUGUST 11: Board reconvened, with some members sitting in New York.

AUGUST 14: Board's final report submitted to President, including statement of employers' last offer of settlement.

AUGUST 18: National Maritime Union reached an agreement with Atlantic and Gulf Coast shipping operators providing for wage increases and retention of union hiring halls pending court rulings on their legality.

AUGUST 25: National Marine Engineers' Beneficial Association reached an agreement with Atlantic and Gulf Coast operators providing for wage increases; union hiring halls to be continued until their legal status determined by court action.

AUGUST 27: American Radio Association signed new contract providing for wage increases, and renewal of hiring hall provisions of old contract pending court rulings on their legality.

AUGUST 30-31: National Labor Relations Board conducted secret ballot of West Coast employees on question of accepting employers' last offer. International Longshoremen's and Warehousemen's Union boycotted balloting and did not appear to vote; other West Coast unions received ballots by mail.

SEPTEMBER 1: The 80-day injunction covering Atlantic and Gulf Coasts dissolved by court action.

SEPTEMBER 2: The 80-day injunction covering West Coast dissolved.

SEPTEMBER 2: National Maritime Union reached an agreement with Great Lakes operators, retaining hiring hall clauses pending final court decision on the issue.

SEPTEMBER 3: Stoppage began at Pacific Coast ports over wage and hiring hall issues. Approximately 28,000 longshoremen and ship-crew members directly involved.

NOVEMBER 25: Settlement between employers and ILWU (CIO), providing for hourly wage increases of 15 cents, not retroactive, and retention of union hiring halls pending court rulings on their legality. Other striking unions secured settlements within the next few days.

<sup>2</sup> International Longshoremen's and Warehousemen's Union (CIO), National Maritime Union (CIO), National Union of Marine Cooks and Stewards (CIO), National Marine Engineer's Beneficial Association (CIO), Pacific Coast Marine Firemen, Oilers, Watertenders and Wipers' Association (Ind.), and American Radio Association (CIO). The International Brotherhood of Electrical Workers (AFL) through one of its locals, representing marine radio operators, was also involved.

<sup>3</sup> The basic dispute—the question of retaining hiring halls—arose from the amendment of National Labor Relations Act by Labor Management Relations (Taft-Hartley) Act of 1947.

*Bituminous-Coal Miners' Contract Dispute: United Mine Workers of America (Ind.), and Bituminous-Coal Mine Operators*

JUNE 19: Board of inquiry appointed by the President to report on coal contract dispute over wages and other conditions of employment. Members—David L. Cole, attorney, of Paterson, N. J., chairman; E. Wight Bakke, Yale University; Waldo E. Fisher, University of Pennsylvania.

JUNE 24: Agreement covering commercial mines reached on a 1-year contract, which provided for a wage increase of \$1 per day and for doubling the operators' payment into the welfare and retirement fund to 20 cents per ton of coal mined.

JUNE 26: Board reported to the President that threat of a coal strike affecting the public interest had been averted.<sup>4</sup>

*Dock Workers' Dispute on the Atlantic Coast: International Longshoremen's Association (AFL), and shipping companies*

AUGUST 17: Board of inquiry appointed by the President. Members—Saul Wallen, labor attorney, Boston, Mass., chairman; Joseph L. Miller, labor consultant, Washington, D. C.; Julius Kass, attorney, New York City. Principal issues: Wage increases and application of overtime rates.

AUGUST 20: Board's report submitted to the President stating that dispute over overtime payments had blocked negotiations and that agreement on other terms might be reached quickly if overtime question could be resolved.

AUGUST 21: The Federal District Court in New York issued 10-day restraining order prohibiting strikes and lock-outs by longshoremen and employers at Atlantic Coast ports.

AUGUST 24: An 80-day injunction issued by the court. The effect of this was to prohibit strikes or lock-outs until November 9.

AUGUST 26: Board reconvened by the President.

OCTOBER 21: Board's final report submitted to the President, including a statement of employers' last offer of settlement.

NOVEMBER 4-5: National Labor Relations Board conducted poll of union members on question of accepting employers' last offer. Employees rejected terms by large majority.

NOVEMBER 9: Agreement concluded between union officers and shipping representatives, providing for hourly wage increases of 10 cents in straight-time rates and 15 cents in overtime rates.

NOVEMBER 9: Anti-strike injunction dissolved by court action.

NOVEMBER 10: Sporadic stoppages developed along Atlantic Coast as longshoremen voted to reject agreement.

<sup>4</sup> The agreement negotiated with the commercial bituminous-coal mine operators was not accepted by operators of "captive" mines. The union-shop clause was the issue in dispute. About 42,000 employees of "captive" mines were on strike for about 9 days in July. Operators then accepted the union-shop clause with proviso that it would be modified if court rulings required.

NOVEMBER 12: Majority of union locals rejected tentative agreement and an official strike sanctioned by union. Approximately 45,000 dock workers, from Maine to Virginia, involved.

NOVEMBER 25: Agreement reached providing for a 13-cent hourly increase in straight-time rates, 19½-cent increase in overtime rates, a welfare plan, and improved vacation benefits. Agreement ratified by membership, and dock workers returned to work on November 28.

## Machinery Manufacture:

### Earnings in November 1948<sup>1</sup>

TOOL AND DIE makers in machinery establishments<sup>2</sup> in November 1948 had average hourly earnings ranging from \$1.51 to \$2.13, among 30 large cities included in a Bureau of Labor Statistics study. An average of \$1.75 or more was earned in this job in nearly half the cities. Production machinists earned from \$1.38 to \$1.81 an hour, and generally similar ranges were recorded for class A assemblers, class A engine-lathe operators, class A inspectors, and class A welders (hand). The lowest-paid plant job studied—hand truckers—in half of the cities averaged \$1.15 or more, city averages ranging from 85 cents to \$1.41 an hour.

Although the general level of earnings in Great Lakes and Pacific Coast cities exceeded those in other areas, a few cities in other regions showed the highest earnings in one or more of the 18 plant job classifications studied. Seven cities (Cleveland, Detroit, Houston, Milwaukee, Pittsburgh, San Francisco, and Syracuse) had the highest earnings in 2 or more jobs.<sup>3</sup> With few exceptions, the lowest earnings were in Atlanta, Cincinnati, and Dallas. Individual jobs varied in relative position in the earnings scale from city to city. Although in most of the cities, tool and die makers were the highest-paid workers studied,

<sup>1</sup> Prepared by Toivo P. Kanninen of the Bureau's Division of Wage Analysis. Data were collected by field representatives under the direction of the Bureau's regional wage analysts. Greater detail on wages and wage practices for each city presented here is available on request.

<sup>2</sup> The study covered machinery industries other than the machine tool, machine tool accessories, and electrical machinery industries. Approximately 507,000 workers were employed in November 1948 in the machinery industries surveyed in the 30 cities. Establishments with fewer than 21 workers were not studied.

<sup>3</sup> In three job categories, the highest average was found in two cities.

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higher earnings were recorded in other jobs in 10 areas. Earnings of class A assemblers in Hartford, Milwaukee, Syracuse, and Worcester, for example, exceeded those of tool and die makers. At the lower end of the scale, class C assemblers and class C drill-press operators in a few communities were found to be earning less than hand truckers.

The degree of wage difference between skilled and unskilled jobs varied among the cities. The wage advantage that tool and die makers held

over hand truckers, for example, ranged from 37 cents in Worcester, Mass., to 90 cents in Houston. New England cities generally showed the smallest amount of wage spread between these two jobs. (See table 1.)

Comparisons of earnings of men plant workers with those reported for November 1947, the date of a previous Bureau wage study, showed that job averages had increased in four-fifths of the cities by at least 5 percent and in somewhat less than half of the cities by 10 percent or more.

TABLE 1.—Straight-time average hourly earnings<sup>1</sup> of men in selected occupations in machinery establishments, 30 cities, November 1948

City	Assemblers			Drill-press operators, single and multiple-spindle			Engine-lathe operators			Electricians, maintenance	Inspectors			Machinists, production	Tool and die makers	Truckers, hand	Welders, hand	
	Class A	Class B	Class C	Class A	Class B	Class C	Class A	Class B	Class C		Class A	Class B	Class C				Class A	Class B
Atlanta	\$1.50	\$1.17	\$0.82	(2)	\$1.09	(2)	\$1.49	\$1.19	(2)	(2)	(2)	(2)	(2)	(2)	\$1.51	\$0.85	(2)	\$1.24
Baltimore	1.47	1.26	1.10	(2)	1.39	\$0.98	1.36	1.46	(2)	\$1.47	\$1.45	(2)	(2)	\$1.57	1.71	.89	(2)	(2)
Birmingham	1.53	1.37	1.25	(2)	1.26	(2)	1.59	(2)	(2)	1.52	1.61	(2)	(2)	1.59	1.88	(2)	\$1.55	(2)
Boston	1.55	1.34	1.25	(2)	1.23	1.12	1.64	1.35	\$1.24	1.57	1.60	\$1.42	(2)	1.51	1.64	1.12	1.51	1.32
Buffalo	1.55	1.38	1.24	\$1.53	(2)	(2)	1.64	1.49	1.31	1.61	1.62	1.35	(2)	1.53	1.71	1.19	1.68	1.46
Chattanooga	1.52	1.40	1.04	1.56	1.47	1.05	1.68	1.28	1.11	1.50	1.48	1.21	\$1.04	1.51	1.67	.97	1.65	1.34
Chicago	1.70	1.52	1.40	1.56	1.51	1.44	1.69	1.54	1.45	1.70	1.59	1.48	1.38	1.67	1.89	1.21	1.71	1.58
Cincinnati	1.36	1.20	1.02	1.29	1.16	.97	1.44	1.18	1.05	1.34	1.47	1.30	1.18	1.38	1.59	.98	1.40	1.22
Cleveland	1.74	1.61	1.34	1.74	1.72	1.27	1.78	1.65	1.33	1.69	1.68	1.58	1.37	1.64	1.89	1.27	1.75	1.48
Dallas	1.36	1.18	1.08	(2)	1.09	.88	1.52	1.30	(2)	1.44	1.41	(2)	(2)	1.45	1.56	(2)	1.30	1.16
Denver	(2)	1.27	(2)	(2)	1.21	(2)	1.54	1.31	1.16	(2)	1.48	(2)	(2)	1.45	(2)	1.16	(2)	(2)
Detroit	1.77	1.56	1.47	1.67	1.62	1.48	1.84	1.62	(2)	1.86	1.77	1.64	1.43	(2)	2.00	1.41	1.73	1.70
Hartford	1.80	1.41	1.23	(2)	1.40	(2)	1.81	(2)	(2)	1.37	1.64	1.31	1.23	1.43	1.73	1.10	(2)	(2)
Houston	1.57	1.42	1.33	1.63	1.38	1.05	1.73	1.55	1.41	1.89	1.69	1.65	1.60	1.78	1.88	.98	1.79	1.78
Indianapolis	1.53	1.44	1.32	1.61	1.48	1.22	1.57	1.39	(2)	1.57	1.61	1.45	(2)	(2)	1.89	1.18	1.56	1.46
Los Angeles	1.57	1.37	1.24	1.47	1.39	(2)	1.67	1.44	1.28	1.89	1.61	1.42	1.27	1.66	1.76	1.15	1.75	1.49
Milwaukee	1.74	1.63	1.56	1.65	1.50	1.61	1.68	1.64	1.50	1.64	1.63	1.54	1.38	1.59	1.73	1.17	1.69	1.66
Minneapolis-St. Paul	1.52	1.36	1.25	1.55	1.34	1.19	1.54	1.35	(2)	1.58	1.55	1.35	(2)	1.58	1.74	1.15	1.54	1.45
Newark-Jersey City	1.75	1.50	1.30	1.64	1.43	1.23	1.68	1.51	(2)	1.70	1.61	1.46	(2)	1.64	1.80	1.13	1.70	1.47
New York	1.68	1.46	1.20	1.57	1.37	1.09	1.64	1.44	1.16	1.62	1.66	1.53	1.17	1.56	1.83	1.13	1.61	1.47
Philadelphia	1.58	1.42	1.29	1.81	1.30	1.16	1.72	1.49	1.31	1.57	(2)	(2)	1.24	1.59	1.75	1.13	1.73	1.57
Pittsburgh	1.68	1.68	1.30	(2)	(2)	(2)	1.67	1.56	1.45	1.65	1.79	1.60	(2)	1.81	1.80	1.20	1.60	(2)
Portland, Oreg.	1.71	1.61	1.37	1.54	(2)	(2)	1.71	(2)	(2)	1.70	1.73	(2)	(2)	1.69	1.85	1.41	1.72	(2)
Providence	(2)	1.35	1.03	1.28	1.20	1.24	(2)	1.21	(2)	1.43	(2)	1.33	1.09	1.47	1.58	1.02	1.51	1.26
St. Louis	1.67	1.29	1.21	1.70	1.38	1.13	1.65	1.47	(2)	1.68	1.54	1.33	1.19	1.75	1.92	1.12	1.61	1.29
San Francisco	1.72	1.51	1.31	(2)	1.47	(2)	1.78	(2)	(2)	1.90	1.72	(2)	(2)	1.76	2.13	1.40	1.85	(2)
Seattle	1.77	1.56	(2)	(2)	1.56	(2)	1.76	(2)	(2)	1.79	(2)	(2)	(2)	1.77	2.06	1.38	1.76	(2)
Syracuse	1.88	1.50	1.55	1.68	1.48	1.37	1.67	1.41	(2)	1.51	1.53	1.33	(2)	1.61	1.69	1.15	1.85	1.72
Tulsa	1.39	1.23	1.11	1.33	1.12	1.02	1.50	1.43	(2)	1.53	1.49	1.20	1.12	1.56	1.61	(2)	1.47	1.37
Worcester	1.64	1.41	1.34	(2)	(2)	1.07	1.45	1.38	1.17	1.54	1.46	1.32	(2)	1.47	1.57	1.20	1.49	1.36

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Insufficient data to justify presentation of an average.

Women plant workers, estimated to account for less than 8 percent of the labor force, are employed primarily in assembling, inspection, and machine-tool-operating jobs. Although the Bureau study included women in these groups, the limited number of job averages that could be established for them did not justify their inclusion in the table. To the extent that comparisons could be made within the various job classifications, men workers in most cases were found to average higher earnings.

Women general stenographers averaged from 95 cents to \$1.27 an hour and the earnings of clerk-typists ranged from 82 cents to \$1.08 (table

2). Pay-roll clerks typically had rates higher than those of clerk-typists, but lower than those of general stenographers. Average earnings exceeded \$1 for each of the jobs in the four Pacific Coast cities and in Chicago, Cleveland, Detroit, Houston, Indianapolis, Newark-Jersey City, and New York.

### Related Wage Practices

A 40-hour workweek for men plant workers<sup>4</sup> was scheduled by three-fourths of the machinery plants studied, and in each city was the most common weekly hours figure reported. A tenth

TABLE 2.—Straight-time average hourly earnings<sup>1</sup> of women in selected office occupations in machinery establishments, 30 cities, November 1948

City	Clerks, pay-roll	Clerk- typists	Stenog- raphers, general
Atlanta.....	(2)	\$1.02	\$1.11
Baltimore.....	\$0.95	.86	1.07
Birmingham.....	(2)	.96	(2)
Boston.....	.97	.89	1.06
Buffalo.....	.96	.85	.99
Chattanooga.....	1.10	.94	1.11
Chicago.....	1.15	1.04	1.16
Cincinnati.....	.96	.86	1.03
Cleveland.....	1.14	1.03	1.18
Dallas.....	.97	.91	1.08
Denver.....	(2)	.97	1.02
Detroit.....	1.18	1.03	1.20
Hartford.....	1.00	.92	1.03
Houston.....	1.24	1.05	1.22
Indianapolis.....	1.15	1.01	1.19
Los Angeles.....	1.13	1.03	1.19
Milwaukee.....	.97	1.02	1.04
Minneapolis-St. Paul.....	1.01	.91	1.05
Newark-Jersey City.....	1.09	1.01	1.14
New York.....	1.17	1.03	1.27
Philadelphia.....	1.09	.93	1.08
Pittsburgh.....	(2)	.94	1.01
Portland, Oreg.....	1.12	1.07	1.13
Providence.....	.94	.82	.95
St. Louis.....	1.02	.90	1.05
San Francisco.....	1.11	1.08	1.19
Seattle.....	1.17	1.03	1.24
Syracuse.....	1.00	.89	1.01
Tulsa.....	1.06	.95	1.14
Worcester.....	1.01	.89	1.08

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Insufficient data to justify presentation of an average.

of the plants scheduled a 45-hour week. The workweek for women plant workers seldom exceeded 40 hours.

Second shifts were reported by half the plants, and third-shift operation by about a fifth, in November 1948. With few exceptions, these establishments paid differentials for extra-shift work. The most common practice provided additional pay on a cents-per-hour basis, rarely exceeding 10 cents for either second- or third-shift work. Approximately a third of the establishments reported payment of a uniform percent addition to the first-shift hourly rate, typically 10 percent for second and third shifts.

Paid vacations were granted to plant and office workers who had 1 year of service, by nearly all establishments studied. Eligible plant workers usually received 1 week of vacation leave, whereas office workers more commonly received 2 weeks. Paid holidays, typically 6 in number, were granted to plant workers by approximately 70 percent of the establishments studied. With few exceptions, office workers received 6 or more paid holidays. In Boston, Houston, New York, Providence, and Worcester, most establishments granted more than 6 paid holidays to office workers.

## Machine Tool Accessory Plants: Earnings in December 1948<sup>1</sup>

AVERAGE STRAIGHT-TIME EARNINGS of tool and die makers in machine tool accessory establishments in December 1948 ranged from \$1.60 to \$2.22 an hour among 10 leading centers of the industry.<sup>2</sup> In 2 cities, these workers averaged over \$2 an hour; in 5 cities from \$1.82 to \$1.86, and in 3 cities, less than \$1.75. Other highly skilled workers studied generally averaged less than tool and die makers. For class A operators of engine lathes, milling machines, and grinding machines, and for class A inspectors, the highest earnings levels in the 10 cities ranged from \$2.11 to \$2.19, and the lowest from \$1.42 to \$1.53. In most cities, class B machine tool operators earned from 20 to 40 cents less than class A operators. Earnings of janitors ranged from 92 cents to \$1.39 and were the lowest rates among all jobs studied.

In 12 of the 13 jobs for which averages could be compared, earnings in Detroit were from 13 to 39 cents above the next highest city. Averages for 6 skilled jobs exceeded \$2.10 an hour in Detroit; except for tool and die makers in Chicago, the second highest wage city, earnings in these selected jobs in the other cities did not exceed \$2. Earnings in Cleveland, the next in the wage scale, were below the Chicago averages in considerably more than half the jobs. These 3 highest wage cities accounted for nearly two-thirds of the industry's total employment in all cities surveyed. Lowest rates for most jobs were in Boston, Hartford, and Providence, where averages were generally from 10 to 35 cents below those in Chicago and Cleveland.

Workers in skilled jobs generally had higher earnings in jobbing shops than in production shops,<sup>3</sup> in Chicago, Cleveland, and Detroit, where such comparisons could be made. In less-skilled jobs, such as class B and class C machine tool operators, a limited number of comparisons

<sup>1</sup> Prepared by Louis E. Badenhop of the Bureau's Division of Wage Analysis. Data were collected by field representatives under the direction of the Bureau's regional wage analysts. Greater detail on wages and wage practices for each city presented here is available on request.

<sup>2</sup> The study covered tool and die jobbing shops and other establishments primarily engaged in manufacturing machine tool accessories and employing 8 or more workers. In December 1948, these establishments in the 10 areas employed approximately 35,000 workers.

<sup>3</sup> Production shops normally manufacture more or less standardized accessories, usually in large quantities to be stocked, whereas jobbing shops are typically engaged in producing nonstandard items according to special orders.



indicated that earnings were higher in production shops.

Workers employed under incentive-pay systems had higher earnings than time workers in the same jobs. However, incentive-pay systems were not common in the industry. Most of those in operation were in the larger production shops in Chicago, Cleveland, Detroit, and Hartford.

Women employed in 3 office jobs had highest earnings in Detroit, where hand bookkeepers averaged \$1.62, general stenographers \$1.39, and clerk-typists \$1.18. Lowest earnings in these jobs were \$1.08 for hand bookkeepers in Milwaukee, 95 cents for general stenographers in Providence, and 80 cents for clerk-typists in Boston.

*Average straight-time hourly earnings<sup>1</sup> in selected occupations in machine tool accessory establishments in 10 cities December 1948*

Occupation, grade, and sex	Boston	Chicago	Cleveland	Detroit	Hartford	Indianapolis	Milwaukee	Newark-Jersey City	New York	Providence
<i>Plant occupations—Men</i>										
Electricians, maintenance.....	( <sup>2</sup> )	\$1.62	\$1.72	\$2.11	\$1.52	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	\$1.38
Engine-lathe operators, class A.....	( <sup>2</sup> )	1.84	1.64	2.12	1.42	\$1.52	\$1.66	\$1.64	\$1.73	1.53
Engine-lathe operators, class B.....	( <sup>2</sup> )	1.57	1.60	1.73	1.47	( <sup>2</sup> )	( <sup>2</sup> )	1.36	1.37	( <sup>2</sup> )
Grinding-machine operators, class A.....	\$1.51	1.85	1.78	2.16	1.74	1.79	1.66	1.66	1.70	1.57
Grinding-machine operators, class B.....	1.20	1.62	1.51	1.76	1.61	1.48	1.45	1.38	1.35	1.30
Grinding-machine operators, class C.....	( <sup>2</sup> )	1.31	1.35	1.50	1.23	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Inspectors, class A.....	( <sup>2</sup> )	1.71	1.89	2.19	1.53	( <sup>2</sup> )	1.65	1.85	( <sup>2</sup> )	( <sup>2</sup> )
Inspectors, class B.....	( <sup>2</sup> )	1.57	1.46	1.76	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1.30
Janitors.....	.93	1.12	1.06	1.39	.99	.99	1.15	.94	.99	.92
Machinists, production.....	1.34	1.66	1.62	( <sup>2</sup> )	( <sup>2</sup> )	1.67	1.51	1.55	1.72	1.34
Milling-machine operators, class A.....	( <sup>2</sup> )	1.85	1.65	2.11	1.55	1.68	1.65	1.53	1.62	1.52
Milling-machine operators, class B.....	( <sup>2</sup> )	1.75	1.57	1.72	1.39	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1.36	1.29
Milling-machine operators, class C.....	1.03	1.38	1.41	1.55	1.30	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Tool and die makers.....	1.71	2.07	1.85	2.22	1.60	1.82	1.83	1.84	1.86	1.64
<i>Office occupations—Women</i>										
Bookkeepers, hand.....	1.19	1.39	1.32	1.62	1.23	( <sup>2</sup> )	1.08	( <sup>2</sup> )	( <sup>2</sup> )	1.36
Clerk-typists.....	.80	1.06	1.03	1.18	.96	.98	.92	( <sup>2</sup> )	1.00	.85
Stenographers, general.....	1.04	1.26	1.21	1.39	1.09	1.14	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	.95

<sup>1</sup> Excludes premium pay for overtime and night work.

Insufficient data to justify presentation of an average.

A comparison of plant occupational averages in December 1948 with those obtained by a study conducted a year earlier in the same cities revealed that over half the job averages had increased by 5 percent or more. Increases rarely amounted to more than 15 percent. About a tenth of the occupational averages showed slight declines. Lower earnings of workers paid on an incentive basis in some jobs (probably because of changes in work flow) accounted for a number of the declines; others probably resulted from turn-over in employment.

### Related Wage Practices

Of the 215 establishments studied in December 1948, 60 were operating second shifts and 12 reported third or other shift operations. Employment on extra shifts varied from zero in Boston and Providence to about 15 percent in Detroit. Most of the plants with extra shifts paid shift differentials; the differential over the day-shift hourly rate usually was 10 cents.

A 40-hour normal workweek schedule was reported for men in about two-thirds of the plants. In other plants, the normal scheduled hours varied widely, about a fourth reporting from 42 to 48 hours, and about a tenth more than 48 hours. Over four-fifths of the firms employing women plant workers reported a 40-hour schedule for women.

Vacations with pay to both plant and office workers were provided by approximately 9 of every 10 plants studied, after a year of service. Most plants provided 1 week, for plant workers, whereas office workers were given 2 weeks by more than half the firms employing such workers. Many plants increased the vacation time after longer service; more than three-fifths of those granting 1 week to either plant or office workers after a year of service, allowed 2 weeks after 5 years' service.

Paid-holiday provisions for plant workers were reported by about half the establishments, and for office workers, by about five-sixths. The typical allowance was 6 holidays.

## Paint and Varnish Manufacture: Earnings in November 1948<sup>1</sup>

HOURLY EARNINGS in paint and varnish manufacturing plants<sup>2</sup> studied by the Bureau of Labor Statistics in 12 cities were generally highest in San Francisco and Detroit and lowest in Philadelphia and Louisville, in November 1948. In half the cities, average straight-time earnings were rarely below \$1.50 an hour for general maintenance men, technicians, tinters, and varnish makers. Only in Philadelphia were the average rates for any of these 4 occupations below \$1.30.

The highest hourly rates were \$1.75 for general maintenance men in Chicago, \$1.73 for tinters in San Francisco, and \$1.69 each for technicians in Detroit and varnish makers in Cleveland. The lowest earnings in these occupations varied from

<sup>1</sup> Prepared by Louis E. Badenhop of the Bureau's Division of Wage Analysis. Information was collected by field representatives under the direction of the Bureau's regional wage analysts. Greater detail on employment, wages, and wage practices for each city is available on request.

<sup>2</sup> The study covered establishments manufacturing paints, varnishes, lacquers, and allied paint products, employing 8 or more workers. The 12 cities included approximately three-fourths of the industry's employment in November 1948.

\$1.11 for technicians in Philadelphia to \$1.36 for general maintenance men in Louisville. Mixers, the largest occupational group of men workers, had average earnings of \$1.30 or more in 8 cities, averages in all cities ranging from \$1.11 in Philadelphia to \$1.53 in San Francisco. The latter 2 cities also represented the extremes in rates for labelers and packers, with averages by city ranging from 90 cents to \$1.42 for men and from 83 cents to \$1.36 for women.

Among 3 office jobs, earnings of women were highest for hand bookkeepers, the averages in 7 cities ranging from \$1.20 in Boston to \$1.58 in New York and San Francisco. General stenographers earned from 85 cents in Philadelphia to \$1.21 in Chicago, and clerk-typists from 81 cents in Pittsburgh to \$1.14 in San Francisco.

Earnings levels in the 12 cities showed increases for practically all jobs since August 1947, the date of a similar Bureau study. Over three-fourths of the average job rates had increased by 5 to 20 percent during the 15-month period. On a percentage basis, average rates in Newark, Philadelphia, and San Francisco had increased somewhat less than those in the other 9 cities.

*Average straight-time hourly earnings<sup>1</sup> in selected occupations in paint and varnish establishments, 12 cities, November 1948*

Occupation and sex	Boston	Chicago	Cleveland	Detroit	Los Angeles	Louisville	Newark-Jersey City	New York	Philadelphia	Pittsburgh	St. Louis	San Francisco
<i>Plant occupations</i>												
Men:												
Labelers and packers.....	\$1.17	\$1.31	\$1.25	\$1.39	\$1.25	\$0.97	\$1.28	\$1.16	\$0.90	\$1.31	\$1.28	\$1.42
Maintenance men, general utility.....	1.40	1.75	1.48	1.57	( <sup>2</sup> )	1.36	1.51	1.59	1.47	1.50	1.43	( <sup>2</sup> )
Mixers.....	1.27	1.40	1.38	1.46	1.36	1.19	1.37	1.30	1.11	1.34	1.23	1.53
Technicians.....	1.39	1.42	1.51	1.69	1.59	1.36	1.39	1.59	1.11	( <sup>2</sup> )	1.61	1.50
Tinters.....	1.40	1.55	1.60	1.59	1.43	1.36	1.51	1.61	1.23	1.44	1.40	1.73
Truckers, hand.....	1.21	1.28	1.26	1.44	( <sup>2</sup> )	1.06	1.20	1.08	( <sup>2</sup> )	1.16	1.13	1.44
Varnish makers.....	1.36	1.54	1.69	1.55	1.46	1.36	1.55	1.55	( <sup>2</sup> )	1.34	1.63	1.65
Women:												
Labelers and packers.....	1.01	1.15	.91	1.20	1.06	( <sup>2</sup> )	( <sup>2</sup> )	1.10	.83	1.06	1.04	1.36
<i>Office occupations</i>												
Women:												
Bookkeepers, hand.....	1.20	1.26	1.37	1.44	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1.58	( <sup>2</sup> )	( <sup>2</sup> )	1.24	1.58
Clerk-typists.....	.88	1.01	.92	.99	1.09	.90	.97	1.02	.87	.81	.88	1.14
Stenographers, general.....	.93	1.21	1.08	1.13	1.12	1.07	1.14	1.20	.85	.92	1.10	1.15

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Insufficient data to justify presentation of an average.

### Related Wage Practices

Most of the 153 plants visited in November 1948 had single-shift operations. The normal weekly schedule for men plant workers in 7 of every 8 establishments was 40 hours. Practically all establishments employing women in plant jobs reported a normal schedule of 40 hours for these workers.

With only 2 exceptions, all establishments re-

ported formal paid-vacation policies applying to both plant and office workers. After a year of service, plant workers were usually allowed 1 week with pay, whereas about two-thirds of the establishments employing office workers granted them 2 weeks with pay. A large proportion of the firms reporting a vacation of 1 week after a year of service granted 2 weeks after longer service.

Time off with pay on certain holidays also was usually provided. From 6 to 7 days were allowed



plant and office workers in four-fifths of the establishments. Those providing more than 7 paid holidays were in Boston, Newark, and New York. In the latter city, more than half the establishments provided 11 days.

## Bases for Understanding Between Labor and Management

BASES FOR MUTUAL UNDERSTANDING between organized labor and management are presented by the Labor Committee of the Twentieth Century Fund in its most recent report on labor relations.<sup>1</sup> This report is an attempt to face the basic issues between organized labor and management and "to see how far they may be reconciled in the interest of both parties and of the Nation as a whole."

Toward this end, the committee examined the fundamental goals of labor and of management, also the attitudes of each toward the aims of the other. The objectives, grouped according to the degree of compromise needed for reaching an accord, are (1) mutual goals, which involve differences of only minor significance, so that little compromise is needed for whole-hearted cooperation; (2) apparently conflicting goals, which upon closer examination reveal strong elements of mutuality; and (3) goals that represent real and unavoidable conflict which cannot be resolved except by substantial compromise on a basis of live and let live.

Into this last group fall the foremost objectives—labor's quest for security and management's desire for the economic welfare of the enterprise.

The committee believes, however, that joint in-plant cooperation between management and a responsible union, in a day-to-day relationship, would reconcile the conflict between labor's desire for security and management's emphasis on pro-

duction. It recommended that in all plants having union representation, "management and organized labor assume responsibility for the integration of the union into the plant organization as an effective channel of two-way communication from managers to workers and from workers to managers."

The report did not attempt to cover the problems of wage determination which arise in collective bargaining; but it recommended that, because of wide differences of opinion between the parties, labor and management, after fundamental study, reach an agreement on basic economic principles which underlie current wage controversies.<sup>2</sup>

The report was signed by all of the eight members of the Labor Committee of the Twentieth Century Fund, but the following dissent was registered by a trade-union member:

As a trade-unionist and as a member of an organization affiliated with the American Federation of Labor, I am convinced that this study is deficient in the following ways:

(a) It fails to adequately present the historic record of over 50 years of mutual understanding between management and labor as represented by the unions of the American Federation of Labor, and, because it omits this large and fruitful experience, is inadequate.

(b) It fails to balance those industrial conditions where various arbitrary, and frequently unjust, methods were applied to force labor to continually increase its manual efforts and increase the day's output to a point which only a worker in his physical prime could accomplish; in fact, to increase the physical efforts to a point which is injurious to the worker's health.

## Evidence of Growing Cooperation

The committee took an evolutionary view: It found that labor relations in the United States during recent postwar years were in a state of transition from the forces of conflict to an increasing reliance on cooperation. Basic factors in this change are labor's new status, and the growth and success of collective bargaining which has become not only the legal but "the customary way of doing things."

Collaboration at top level was noted. The 1947 agreement between the United States Steel Corp. and the United Steelworkers of America (CIO), for example, provided for joint studies on ques-

<sup>1</sup> Partners in Production—A Basis for Labor-Management Understanding. A Report by the Labor Committee of the Twentieth Century Fund, assisted by Osgood Nichols. New York, Twentieth Century Fund, 1949.

The committee, a permanent body, consists of employers, representatives of organized labor, economists, and members experienced in public affairs, under the chairmanship of William H. Davis, formerly Chairman of the National War Labor Board and formerly Director of the U. S. Office of Economic Stabilization. This is the sixth report made by the Fund on labor relations and public policy over a period of 13 years.

<sup>2</sup> Toward this end, it was recommended that the findings of the President's Council of Economic Advisers be utilized as a basis for discussion.

tions of seniority and life, accident, and health insurance, for joint plant safety committees, and for quarterly review meetings of top union and corporation officials. Cooperation at shop level was also found in various companies.

In addition, the committee noted that the type of leadership was changing: The militant anti-union employer was being slowly supplanted by the executive who "has proved his ability to get along with labor." In the rank and file industrial unions which had grown up since the founding of the CIO, the conflict type of officer was being gradually replaced by the administrative type.

### Labor Goals

Four major objectives were ascribed to labor, both as individual workers and as organized unions:

Labor desires security on the job and in the community. It looks upon strong, secure unions as the primary safeguard against job insecurity. But the needs of the union as an institution, according to the committee, take priority over the goals of the individual member.

Unions as such cannot be safely ignored by employers interested in satisfying the goals of their workers. Unions have been selected in enough free elections conducted by the National Labor Relations Board over the past 12 years so that there should no longer be any doubt that the workers, as a whole, prefer to achieve their goals through this channel—or at least do not want it circumvented.

Labor wants a chance to advance. Trade-unions have done effective work in reducing favoritism in promotions, formerly one of the worker's most justified complaints.<sup>3</sup>

The worker wants more human treatment. Clauses in collective agreements setting forth the rights of workers and establishing grievance machinery are instanced as significant steps. "Labor wants more, however, than can be squeezed into any formal contract. \* \* \* Labor's feeling that it can contribute more to the job than brawn and skills lies back of the demand for greater participation in industry."

A sense of dignity on the job—labor's fourth objective—is, in part, a desire of the individual to do useful, constructive work and understand its relationship to the enterprise.

<sup>3</sup> Favoritism is a factor, says the report, hard to control without strict rules and an agency to enforce them on behalf of the employee.

The report found that wages as a source of individual satisfaction, however important, were seemingly of less consequence than has been assumed, although almost always the major issue in collective bargaining.

### Management Goals

Four major objectives were also ascribed to management:

Foremost is the desire for the economic welfare and security of the company. Both of these, according to management, are tied up with the worker's welfare and security. Technological changes, production incentives, workers' restriction of output, and the quest of management to increase productivity entail problems interwoven with this objective.

In seeking teamwork and loyalty, management's aim is for its personnel relations to be primarily between the employer and his own employees.

Freedom to manage the enterprise, management believes, is being challenged by the encroachment of the labor movement; unions are demanding more authority within the enterprise, but are not willing to assume corresponding responsibility. The committee refers to the fact that in recent years provisions for "company security" and "management prerogatives" have been inserted in labor agreements.

Finally, management desires responsible relations with unions. This includes freedom from wildcat strikes and slow-downs, and certainty as to contracts being carried out.

### Bases for Mutual Understanding

The foregoing objectives are discussed below as to the degree of compromise needed for resolving the issues involved:

(1) Mutual goals—labor's desire for a chance to advance and management's aim of business-like, responsible relations with organized labor—require but little compromise.

(2) Goals of seeming conflict admit of potential cooperation and include human treatment, more dignity in the job, management's relations with its own employees, and freedom to manage.

Labor's demand for recognition of the human factor in industry is attributed to the pivotal role



given the machine in American industry and the problems brought about by technological change and large-scale industry. Methods of easing technological displacement are discussed by the committee.

As to more dignity in the job, the report points to a significant wartime experiment in union-management cooperation in Toronto.

The problem thus becomes one of creating communities of self-directed citizens out of the nation's shops. Every industrial enterprise by nature must be a cooperative enterprise. That its members—particularly workers—do not act as if they understood this is because the shops in which they do their daily stint have not been organized to give them a sense of participation or responsibility. They are merely there to do their jobs, get paid, go home. The returns to the enterprise are empty because the life is empty.

As to management's relation with its own employees, competition between management and union for the loyalty of workers is characterized by the report as a symptom of unsuccessful labor-management relations. Mutual understanding, it comments, comes when each recognizes the separate function of the other—that of the union to represent workers in the protection of wages, hours, and working conditions; that of management to assume responsibility for success of the enterprise and for directing the work.

Conflict also arises when management tries "to protect individual workers against their union."

The relation between the union and the individual is hardly management's business unless accepted company rules are broken or the union requests management to fire an employee under a union-security clause. Each of these cases can be handled by an adroit employer, provided his interference is not motivated by a desire to strike at the union.

Outside interference by the international union with negotiations of a local is cited as another cause of conflict in a few industries. As a part of the international, local unions accept a certain amount of direction on wage and strike policies:

Realistic employers know they have to learn to live with international unions, just as they have had to learn to live with their locals. If they succeed in creating superior labor relations, the union members will see to it that such outside union interference is kept at a minimum.

The conflict over managerial prerogatives does not arise because labor wants to take over the job of management, according to the committee. It centers on union demands for mutual-consent

clauses or joint committees covering such subjects as job evaluation, time study, working rules and regulations, disciplinary action, production standards, administration of employee benefits, changes in shift schedules, and sharing of work.

A more precise definition from organized labor and management of "freedom to manage" would make for better understanding, in the committee's opinion. It cited the experience of the President's Labor-Management Conference of 1945, when management representatives on a committee presented a list of functions and responsibilities for exclusion from the bargaining process, and the labor members rejected the proposal, stating—

It would be extremely unwise to build a fence around the rights and responsibilities of management, on the one hand, and the unions, on the other. The experience of many years shows that with the growth of mutual understanding the responsibilities of one of the parties today may well become the joint responsibility of both parties tomorrow.

The report suggests a possible approach to the problem of managerial prerogatives by distinguishing between determination of policy content and execution of policies. The content of policies, especially those which affect employees in the plant, is stated to be a proper matter of bargaining. However, execution of jointly accepted policies is the peculiar responsibility of management. The opportunity of unions to challenge the manner in which management executes policies should be safeguarded through grievance machinery designed to enable unions to review decisions which they deem to be in conflict with agreements, or to be unreasonable or inequitable.

(3) Goals of real conflict—the worker's quest for security and management's desire for an efficient and profitable enterprise—can be compromised in various ways, according to the report, although they "collide head-on over work restriction. \* \* \* If management, through the unions, succeeds in enabling the average worker to do more things for himself, it will find that he is more secure, satisfied, and productive." Furthermore, management would risk greater union participation if convinced that the unions would accept responsibility for helping to make an enterprise a success. Labor, in turn, would accept that responsibility if convinced that it would thereby raise its status in industry and perform a more vital function to its members.

## Case Studies in Industrial Peace: Men's Clothing Industry

ACCEPTANCE by management of collective bargaining and by the union of responsibility has been the fundamental cause of industrial peace between the Amalgamated Clothing Workers of America (CIO) and the Hickey-Freeman Co. of Rochester, N. Y. Management techniques for handling labor relations apparently grew out of these essential conditions. This conclusion was reached in a study by the National Planning Association on the Causes of Industrial Peace Under Collective Bargaining.<sup>1</sup>

The collective agreement in effect at the time of the study (1948) was dated September 12, 1940; a supplement dated May 1, 1947, extended it to April 30, 1952.

When the first contract was signed, in 1919, the Amalgamated Clothing Workers of America was 5 years old. Its attempts, beginning in 1915, to obtain recognition by the Rochester clothing industry, had shown little result until 1918. In the summer of that year, the union president (Sidney Hillman) persuaded two outstanding authorities—a Harvard professor and a businessman experienced in work on labor standards—to intervene in a strike in one factory.

On the advice of these two men (William Z. Ripley and Louis Kirsten), the clothing executives conferred with the union president, who suggested submitting the controversy to arbitration. The plan was adopted, and the two mediators were chosen as arbitrators. Their award, which both parties accepted, provided for a 10- to 20-percent wage increase, time and a half for overtime, and a 48-hour week. No agreement was entered into at that time.

After the Amalgamated had succeeded in obtaining contracts in other parts of the country lowering the workweek to 44 hours, the Rochester Clothiers' Exchange (which represented Hickey-Freeman) announced January 23, 1919, that on May 1 it would adopt the 44-hour week. The union joint council, however, demanded the shorter

week, effective immediately. Negotiations followed, and the first contract was signed on February 13, 1919, effective April 1.

In the following 29 years (to the year of the NPA study), no strike of any kind took place at the Hickey-Freeman factory; during the last 18 years of the period, no case required submission to arbitration.

Features of the first contract were the right to collective bargaining, the open shop, grievance procedure, arbitration of disputes by a person to be chosen by both parties, a 44-hour workweek, and wages to be decided upon through conference, the issue to be settled by arbitration if necessary. It was a brief document; this fact, the study points out, did not reflect any unusual trust between the parties or disinterest on the part of either labor or management in protection of either's rights or prerogatives. But it did indicate "trust in the judicial wisdom of an impartial chairman rather than in protective legal terminology. \* \* \* It amounted to negotiation by arbitration."

The experience under the first impartial chairman (Dr. William Leiserson) demonstrated the value of "a sound method of arbitration as an aid in surmounting the initial obstacles to a collective-bargaining relationship." Not only by "handing down fair and equitable decisions, but also by taking pains to explain his decisions," he created a code of industrial ethics which "could give guidance to both union and management representatives." He established "recognized standards of industrial behavior so that in time the number of grievances going to arbitration were literally reduced to zero."

During the first year under the contract, 33 Hickey-Freeman cases were referred to the impartial chairman, of which 7 were mediated by a joint committee, 15 were won by the union, 6 were won by the employer, and 5 were adjusted. The arbitrator made himself available at management conferences and union meetings, for discussion of decisions that had been issued, thus hammering out "on the anvil of free discussion," general acceptance of the principles which he helped to form.

In 1922, the Clothiers' Exchange issued a list of rules distilled from the arbitrator's decisions. Important principles had been established, as for instance, those with regard to equal division of work and discharges. As the list of rules became generally known and accepted, referral of cases to

<sup>1</sup> National Planning Association. *Causes of Industrial Peace Under Collective Bargaining*. Case Study No. 4, Hickey-Freeman Co. and the Amalgamated Clothing Workers of America, by Donald R. Straus, Washington, 1949; press release of February 4, 1949.

The first two case studies by the NPA Committee were summarized in the *Monthly Labor Review* of December 1948 (p. 626).



arbitration diminished. "Both parties came to the conclusion that better settlements could be reached through discussion and compromise by the people directly concerned than by an outsider even as well acquainted with the industry as the impartial chairman."

The last case settled by arbitration, involving Hickey-Freeman, was in 1930. Other practices developed which are considered basic in this instance to labor-management harmony. One of the most important of these, according to both union and management, is the closed shop.

### Growth of the Closed Shop

A clause in the original 1919 contract, which set forth "the so-called 'open-shop' principle," was dropped by 1922. Although no provision for union security took its place, the following clause, according to the study, could be considered "a delicate introduction" to the subject:

The power to hire shall remain with the employers, but in time of unemployment, it is understood that consideration shall first be given to persons who have been employed in local shops doing work for members of the Clothiers' Exchange.

A request by the union in 1925 for a clause to provide preferential hiring for union members was dropped because of employer resistance. The joint board set up an efficient employment exchange after a few months, however, which within half a year was filling 98 percent of the jobs. Several years later the closed-shop principle was formally recognized in a contract.

The union at first preferred not to collect its dues through a check-off, but eventually requested an automatic check-off provision, which "was welcomed by the company."

A company representative expressed the opinion that the closed-shop and check-off provisions were essential to the union-management relationship. He stated that their existence "greatly fortifies the union's strength, both financially and politically \* \* \* also gives the union leaders the freedom to make decisions which might at the time be unpopular with the rank and file and which the leaders would never dare make if they were not so secure. Over the years, this ability of the union to act independently of short-run considerations often has produced decisions favorable to the employers."

### Union-Management Cooperation

Instances cited of union cooperation with management included gradual adoption of the piecework system, as a result of depressed conditions in 1921 and in the early 1930's; negotiations of the wage cuts found necessary in the latter period; and stabilization of labor costs, which began in 1933.

So important were the problems of wage stabilization because of competition between localities that the union created a stabilization department in 1939. All rates, the report stated, required approval by that department. The tabulation below shows increases in rates throughout the period 1939 to 1947, for work on 2-button, single-breasted sack coats of two separate grades.

	Piecework rates for basic sack coat		Nature of increase
	Grade I	Grade IV	
1939-----	\$1. 70	\$2. 92	
1941, May-----	1. 92	3. 21	10 percent.
1942, May-----	2. 17	3. 63	10 cents per hour or about 13 percent.
1945, December--	2. 60	4. 36	15 cents per hour or about 20 percent.
1946, November--	----	----	12½ cents per hour cost- of-living bonus—piece rates unchanged.
1947, November--	----	----	Another 12½ cents per hour.

In evaluating the principles which supported the labor-management accord in this instance, the study listed, as assets of the union under the relationship, its freedom from concern over membership loyalty, employer hostility, or unilateral lay-offs; and the possession of funds and time to develop welfare and health plans and other constructive projects. The union at the same time accepted the responsibility to consider economic health of employers as well as that of employees; to make no "blue-sky" demands; not to press grievances having no real merit; and not to strike during effectiveness of the contract.

Assets of the company under the relationship were set forth as freedom from labor strife (virtually guaranteeing production) and from competition based on cheaper labor; flexibility of wages through union cooperation in hard times; the aid of the union-shop chairman in management. Responsibilities recognized by the company were acceptance of the union as part of the plant with no measures taken to weaken its position; taking

the union into confidence in making policy decisions affecting workers; and observing the union's areas of action, such as welfare plans and employee activities.

Neither party, it was stated, attempted subterfuge in bargaining to gain an advantage.

## European Cooperatives as a Trade Factor

THAT CONSUMERS' COOPERATIVES in Europe account for a substantial part of the national wholesale and retail trade is indicated by figures given in the Review of International Cooperation (London) for November 1948 (pp. 261-263). In retail trade, the proportion ranges in the various countries from 10.0 to 33.5 percent. For important individual commodities on which information is available, the proportion is as high in some cases as 32 percent (e. g., of milk in Great Britain). The extent of participation of consumers' cooperatives in national trade is shown below, by country:

	Percent of national trade done by cooperatives
Austria: Retail trade (food only)-----	10. 0
Denmark: Wholesale and retail trade-----	25. 0-30. 0
Finland:	
Wholesale trade-----	34. 6
Retail trade-----	33. 5
Hotel and restaurant trade-----	22. 4
France: Trade (not specified)-----	10. 0
Great Britain:	
Wholesale trade-----	9. 0
Retail trade (goods handled by cooperatives)-----	14. 0
Hardware, furnishings-----	5. 0- 7. 0
Drugs-----	6. 0
Footwear-----	10. 0
Meat-----	12. 0
Groceries, confectionery-----	18. 0
Coal-----	20. 0
Milk-----	32. 0
Norway:	
Wholesale trade-----	15. 0
Retail trade-----	10. 0-15. 0
Sweden: Retail trade-----	15. 0-20. 0
Food only-----	20. 0-25. 0
Switzerland: Retail trade-----	12. 0-15. 0
Shoes only-----	11. 5

In Sweden, the cooperative wholesale society, Kooperativa Förbundet, has gone into production extensively to break monopolies and to force down prices. In 1944 and 1947, cooperative production in that country accounted for the following percentages of total national output:

	Percent cooperatively produced
Boots and shoes (1944)-----	4- 5
Automobile tires (1944)-----	75
Bicycle tires (1944)-----	14
Rubber footwear (1944)-----	20
Electric light bulbs (1944)-----	33
Household china (1947)-----	65-75
Bathtubs (1947)-----	90
Heating boilers (1947)-----	25-30

## Vocational Education for Negro Youth in Texas <sup>1</sup>

A MORE PRACTICAL vocational education program in Negro high schools is an urgent need in the preparation of Negro youth for work, according to results of a study by a Texas educator.<sup>2</sup>

The schools covered, it was stated, provided but a limited range of vocational instruction. Courses were given in trades, sewing and cooking, typing, shorthand, bookkeeping, auto mechanics, and vocational agriculture. Two urban schools offered radio engineering, and one rural school, welding.

High-school curriculums as prepared, the author of the study believes, aid the small percentage of students who will continue their education, but compel other graduates, because of a lack of training, to enter the "over-crowded domestic-service field." Domestic employees, chauffeurs, and workers in other service occupations, were said to make up nearly 43 percent of all Negro workers in Texas.

The author recommended that opportunities for commercial and trade education be increased to take care of the needs and abilities of pupils

<sup>1</sup> Vocational Education in Negro High Schools in Texas, by Ira B. Bryant (in Journal of Negro Education, Howard University, Washington, D. C., Winter 1949, pp. 9-15).

<sup>2</sup> A sample covering high schools containing 15,340 pupils or 54.8 percent of the total enrollment of Texas Negro secondary schools (1945-46) was obtained through a questionnaire addressed to principals of the schools. Another questionnaire was sent to 6,000 Negro workers in selected occupational fields. Of the workers' replies, 3,308 were used.



who will not go to college; and that youths be encouraged to enter vocations in accordance with their abilities, interests, and aptitudes.

Greater emphasis should be placed, it was said, on training for replacement in skilled occupations. Manpower needs of the World War II period brought about increasing percentages of employment of Negroes in Texas in the iron and steel, machinery, chemicals, ordnance, petroleum refining, shipbuilding, synthetic rubber, nonferrous metal, and aircraft industries. The author of the study believes that, if Negro workers are not given either on-the-job or in-school vocational training, many occupational gains made in recent years will be lost.

## Labor Requirements for New Construction, 1949

SEASONAL DECLINES in construction activity during the first quarter of 1949 were accompanied by a corresponding reduction in construction labor requirements. New private and public construction put in place during the period provided jobs for an average of 1,656,000 workers—a decline of 833,000 from the 1948 peak in the third quarter. Almost 60 percent of the decline occurred early this year, when construction operations were limited, particularly in January and February, by extremes of winter weather in many sections of the country. When the first 3 months of 1948 and 1949 are compared, construction labor needs were less this year by 53,000 jobs.

Indications of a spring upturn in construction labor requirements are shown in preliminary Bureau estimates of expenditures for new construction put in place. A total volume of 1,368 million dollars for new construction in April was 19 percent above the seasonal low in February.

The number of jobs provided at the site of new residential projects, which had reached a postwar peak of 784,000 in the third quarter of 1948, declined by 112,000 in the fourth quarter. There was a further drop of over 200,000 in the first quarter of 1949, when housing starts and residential construction expenditures failed to reach

the levels attained in January, February, and March, 1948. Nevertheless, with 467,000 workers required, nonfarm housebuilding provided site jobs for one-fourth of all construction workers employed in the first quarter of 1949.

### Labor requirements for new construction

[Estimated total number of workers<sup>1</sup> involved in current construction activity]

Type of construction	Average monthly number of workers (in thousands)				
	1949	1948			
	1st quarter <sup>2</sup>	4th quarter <sup>3</sup>	3d quarter	2d quarter	1st quarter
Total new construction (off-site and on-site) <sup>4</sup>	1,656	2,133	2,489	2,156	1,709
Off-site.....	209	265	297	261	217
On-site.....	1,447	1,868	2,192	1,895	1,492
Private construction.....	1,100	1,430	1,689	1,469	1,190
Residential building (nonfarm) <sup>5</sup>	467	672	784	690	553
Nonresidential building (nonfarm) <sup>6</sup>	345	395	411	365	347
Farm construction.....	25	46	142	96	33
Public utilities.....	263	317	352	318	257
Public construction.....	347	438	503	426	302
Residential building.....	6	4	7	8	13
Nonresidential building <sup>6</sup>	156	154	146	125	112
Conservation and development.....	36	53	57	49	38
Highways.....	74	141	193	149	70
All other public <sup>7</sup>	75	86	100	95	69

<sup>1</sup> These estimates are designed to measure the number of workers required to put in place the dollar volume of new construction under way during the given period of time. They cover the workers engaged at the site of new construction and also employees in yards, shops, and offices whose time is chargeable to new construction operations. Consequently, the estimates include not only construction employees of establishments primarily engaged in new construction, but also self-employed persons, working proprietors, and employees of nonconstruction establishments who are engaged in new construction work. They do not cover persons engaged in repairs and maintenance.

The non-Federal construction estimates are derived by converting, into man-months of work, dollars spent during each month of the quarter on construction projects under way. The conversion is made by using a factor representing the value of work put in place per man per hour based on data from the 1939 Census of Construction and from periodic studies of a large number of individual projects of various types by the Bureau of Labor Statistics. The factor is adjusted for each quarter in accordance with changes in prices of building materials, average hourly earnings of construction workers, and average hours worked per week. For Federal construction, estimates are made directly from reports on employment collected from contractors and then checked against estimates based on Federal expenditures.

For estimates of the total number of workers employed by firms engaged in new construction, additions, alterations, repairs, and maintenance work, see table A-2, p. 572.

<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

<sup>4</sup> Includes major additions and alterations.

<sup>5</sup> Includes nonresidential building by privately owned public utilities.

<sup>6</sup> Includes workers employed on facilities used in atomic energy projects.

<sup>7</sup> Includes airports, water supply and sewage disposal systems, electrification projects, and miscellaneous.

Exceptions to the general downward movement at the beginning of 1949 were public nonresidential construction and public housing. The need for site workers on public nonresidential building has grown steadily throughout 1947, 1948, and into 1949, when first-quarter labor requirements were 156,000 workers, or 45 percent of the total needed for public construction. Construction labor needs for public housing reversed a 2-year downtrend by

rising slightly in the first quarter of 1949. However, the demand was for only 6,000 workers.

The decline from the fourth quarter of 1948 in labor requirements was especially sharp in public highway and street work (141,000 to 74,000).

## Labor-Management Disputes in April 1949

SOME INCREASE in the number of new work stoppages occurred in April 1949, according to preliminary reports. The number of workers involved, however, and time lost were less than in March when the 2-week coal mining stoppage brought the figures substantially above the levels of the several preceding months.

No unusually large strikes began in April. Several stoppages involved from 5,000 to 15,000 workers. These included taxi drivers and brewery workers in New York City, and Bendix Aviation Corp. employees in South Bend, Ind. The Railway Express Agency stoppage in New York City and northern New Jersey which began March 12 was terminated April 18. Local newspapers in the Nation's Capital were not published for 3 days during a work stoppage of printing pressmen.

### Taxi Drivers Strike in New York City

Union recognition, closed shop, increased wages, and a pension and welfare plan were among the demands of the Taxi Drivers Organizing Committee of District 50, United Mine Workers of America (Ind.) in a strike of New York City taxicab drivers from April 1 to 8. The union had been actively organizing for some time, but fleet owners had resisted demands for recognition until the union had established its right to represent the workers by an election. At the beginning of the stoppage from 10,000 to 15,000 workers, including some owner-drivers, were idle, but by April 6 many cabs had reappeared on the streets. In the course of the strike the Mayor of New York City proposed an election to be conducted by the State labor relations board. By this time, how-

ever, the strike was losing its effectiveness and the proposal was rejected by employers. The union terminated the stoppage, with no settlement of the issues, on April 8.

### New York Brewery Workers in Contract Dispute

Approximately 7,000 brewery workers in New York City were made idle on April 1 in a strike against 14 brewery firms by members of the International Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America (CIO) after negotiations on a new contract were deadlocked. The union demanded a weekly wage increase of \$8.50, a basic workweek of 35 instead of 40 hours, the assignment of two men to each delivery truck, and a pension plan.

For a few days, pickets were stationed at the Holland Tunnel and the George Washington Bridge to prevent beer trucks from New Jersey from entering the New York City area but were later removed.

One brewery and 11 distributing companies settled about April 5 for a 35-hour week plus any additional benefits won by the union in negotiations with other firms. Settlements with several additional firms were reported by the end of April.

In Buffalo, N. Y., approximately 1,000 brewery workers were also engaged in a wage strike during the month.

### Stoppage at Bendix Aviation Corp., South Bend

Demands for the reinstatement of 47 workers discharged for alleged slow-down tactics caused a walk-out April 7 of approximately 7,500 workers of the Bendix Aviation Corp., South Bend, Ind.

A few days later the company filed a damage suit against the United Automobile Workers Union (CIO) Local No. 9. Upon orders from the international officers of the union, who termed the walk-out unauthorized, the workers returned on April 15. The next day a formal strike ballot was taken and a large majority voted to strike on April 20, unless the 47 discharged workers were rehired. An adjustment of wage rates in one department, and withdrawal of the damage suit filed by the company, were likewise sought.

No settlement was reached before the strike



deadline and at the month's end the plant was still idle.

### Railway Express Stoppage Ended

Service was resumed April 18 at Railway Express Agency depots in New York City and northern New Jersey after a shut-down which began March 12.<sup>1</sup> The stoppage was terminated, upon insistence of an emergency board<sup>2</sup> appointed by President Truman, before hearings began in Washington, D. C., on the demands of the union—Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees (AFL)—for a 5-day, 40-hour week instead of a 6-day, 44-hour week, plus increased wages and pay for time lost during the strike. On April 11, the company invited several thousand employees to return to work, under pre-strike conditions, pending the board's findings. The union, however, voted not to return until the company agreed to rehire all of the 9,000 workers employed prior to the lock-out. Upon satisfactory settlement of this point, work was resumed on April 18. The embargo in effect since March 9 on less than carload lots coming into New York City was lifted and normal service was soon restored.

<sup>1</sup> See *Monthly Labor Review*, April 1949 (p. 433).

<sup>2</sup> Members of the Board are David Cole of Paterson, N. J. (chairman), Aaron Horwitz of New York and Leverett Edwards of Chicago.

### Pressmen Strike on Washington Newspapers

After negotiating since late January over terms of a new contract, nearly 150 members of the International Printing Pressmen (AFL), employed by four daily newspapers of Washington, D. C., stopped work April 5 and again from April 11 to 14. On April 5, they remained in continuous meeting but were ordered back to work by their international union president as no notice of terminating the negotiations had been given. Following notice, however, the strike was resumed on April 11. After the 3-day strike, a new contract was agreed upon (April 14) providing for wage increases of \$6 a week, retroactive to February 7, with an additional \$1 a week beginning November 1, 1949, a reduction in the workweek from 37½ to 36½ hours, overtime pay at time and a half for the sixth day of work, and 3 weeks' vacation after 5 years of service.

During the same period, members of the Stereotypers' and Electrotypers' Union (AFL) also were on strike. They obtained a new contract providing for a weekly wage increase of \$6, retroactive to December 1, 1948, the expiration date of their old contract. The new contract further provides for an additional \$1.50 weekly wage increase on November 1, reduces Saturday hours from 7½ to 6½ with no loss of pay, and grants 3 weeks' vacation after 5 years of service.

# Technical Notes

## Measuring Consumers' Price Changes in Six South American Cities<sup>1</sup>

OFFICIAL CONSUMERS' PRICE INDEXES for six South American cities have risen through the past decade at widely varying rates. The magnitude of the rise in the indexes supports the general observation that inflation has been relatively severe in these countries. Variation in rate of increase may reflect differences in the items selected for pricing and in the methods of price collection and preparation of the indexes, as well as in the actual price changes.<sup>2</sup> The indexes are shown for selected periods in table 1, and information on the construction of each is given in table 2.

### Area Difficulties of Measurement

Special problems face the makers of consumers' price indexes in many of the South American countries. Each of the six indexes discussed here applies only to a single city and, for reasons peculiar to the region, it would be difficult to set up nation-wide indexes. South America lacks a large homogeneous group of wage earners. Industrial wage earners comprise a small percent of the total labor force in these primarily agricultural countries.

The lack of adequate transportation facilities forces upon workers outside the main importing centers a pattern of consumption different from that of workers in the coastal cities. Home-produced commodities frequently can be shipped to interior points only after they have been sent first to coastal cities, because railroads tend to run to

these cities from the interior without direct inter-city lines within the individual countries. South America also requires large imports of consumer goods. When imported goods are not plentiful the supplies are absorbed in the importing centers and are not shipped inland. At the same time, domestic foodstuffs may be in surplus supply inland, while scarce in the coastal cities.

TABLE 1.—Indexes of consumers' prices in 6 South American cities in selected periods

[1939=100]

City	All items				Food			
	1941	1945	Mar. 1948	Dec. 1948	1941	1945	Mar. 1948	Dec. 1948
Asunción, Paraguay.....	117	196	353	428	118	177	318	418
Bogotá, Colombia.....	95	160	239	253	92	171	255	257
Caracas, <sup>1</sup> Venezuela.....					94	132		
Lima, Peru.....	117	182	331	353	125	198	389	415
La Paz, <sup>2</sup> Bolivia.....	172	306	438	453	175	299	480	(?)
São Paulo, Brazil.....	117	232	359	344	121	245	425	392

<sup>1</sup> Index for food, charcoal, brooms, soap, and salt available only through December 1947 when it was 173 based on 1939=100.

<sup>2</sup> Food index not available. "All items" for December 1948 computed from information that index had risen 5.4 percent during 1948.

Sources: Based on data from United Nations Monthly Bulletin, official publications of the various Governments, and reports from foreign service officers of the United States.

Workers sometimes receive housing as part of pay and commissary privileges from the employer. In the interest of stabilizing the purchasing power of the workers, employers sometimes hold commissary prices at stable levels, although wholesale prices have risen. The expenditures and consumption patterns of such groups necessarily differ from those of workers receiving only a money wage.

Lack of standardization of goods is another difficulty in preparing indexes for South American countries. A sound index of consumers' price changes is dependent on the periodic pricing of items of the same quality. When variations in quality are widespread the recognition of identical qualities is made difficult, and, even if identifica-

<sup>1</sup> Prepared in the Office of Foreign Labor Conditions by Marion H. Gillim and Henry S. Hammond from materials obtained during 1948 from officials responsible for the preparation of the indexes in Asunción, Bogotá, Caracas, Lima, La Paz, and São Paulo.

<sup>2</sup> For a discussion of lack of comparability among indexes measuring changes in consumers' prices, see Monthly Labor Review, January 1947 (pp. 36-38) Inflation Problems at Home and Abroad.



tion is accurate, the same qualities are not consistently available. In these South American cities, greater reliance is placed on the judgment of the enumerators in obtaining consistent quality in the items priced than is permitted in many countries where consumer goods are more standardized and therefore more easily described in quality specifications.

The prevalence in South America of bargaining between the buyer and seller to determine the price makes it difficult for the agent visiting a retail outlet to obtain quotations of prices actually paid by the consumer. Many markets do not display prices, and a sale is made only after haggling. If pricing were limited to those stores with fixed prices, in many cases the sample of outlets priced would not be representative. The collection of valid prices under such circumstances requires recognition and solution of this problem.

A true index of changes in consumers' prices must cover the goods and services actually bought by a given economic class, and the weights must be based upon the average distribution of expenditures by that class.<sup>3</sup>

It is particularly difficult to meet these requirements in South America because of the rapid recent changes and the anticipated future changes in the level of living, the goods bought, and the allocation of expenditures among the groups of commodities. These changes are due only in part to the distortions of markets during wartime and the postwar readjustment. They also result from increasing industrialization in underdeveloped countries which is accompanied by a growth in the number of industrial wage earners, a movement of workers from rural to urban areas, a rising level of living, and changes in the kinds and quantities of goods bought by consumers.

If South American countries achieve their aims of further development, it will be a long time before relative stability in wage earners' consumption patterns is reached. Even highly industrialized countries must adapt their indexes to take account of long-run changes in buying habits. In countries undergoing extensive industrial and economic changes, additional flexibility must be allowed for the adjustment of weights to changing conditions.

<sup>3</sup> See also International Labor Organization, *The Sixth International Conference of Labor Statisticians*, Geneva, 1948, *Resolution Concerning Cost-of-Living Studies* (p. 60). At this conference, postwar difficulties of measuring changes in consumers' prices were discussed and a resolution was adopted which recognized the importance of proper weighting.

The recency of the expenditure study from which the weights are obtained is especially important in countries becoming industrialized and undergoing shifts in types of employment.<sup>4</sup>

The combination of inflation, Government price controls, and illegal market operations have complicated price collection for the indexes in South America as in other parts of the world. Interpretation of the indexes requires information as to whether the prices collected were the legal prices or those actually paid by the consumer. Officials reported the acceptance of legally established prices for the index in only one of the six cities discussed here. For the other cities, officials stated that an effort was made to collect the prices paid by the consumer in those outlets from which prices were obtained. Officials responsible for the Asunción and Bogotá indexes described the checks prescribed for determining whether the prices collected were the same as those paid by consumers in the markets surveyed.

### Index Coverage and Methodology

Important aspects of the history, preparation, and bases of the indexes are outlined in table 2.<sup>5</sup> Many similarities are observed; Caracas is the sole one of the six cities for which the index is not designated a cost-of-living index; São Paulo is the only city where the index is not prepared by an agency of the national government; the indexes for Caracas and La Paz apply to the middle class, but the others are designed to apply to families of wage earners; and only the Lima index was begun before 1936.

Differences in composition and weighting are important. For example, fresh vegetables are not priced in all of the cities; tobacco and beer, when priced, are sometimes included with the foods and sometimes classified elsewhere; and fuel and electricity are not treated uniformly. The bases of the weights include both hypothetical percentage distributions of expenditures and family consumption studies made in the late prewar years.

<sup>4</sup> The ILO's sixth conference of labor statisticians recommended "small sample studies of consumer purchases . . . to provide the basis for discovering significant changes in consumption patterns to indicate the need for revisions in the weighting diagrams." ILO, *op. cit.* (p. 62).

<sup>5</sup> For descriptions of Latin-American indexes of consumers' prices, see Francisco de Abrisqueta and Liborio Cuéllar Gómez, *Índices del Costo de la Vida Obrera en América*, Pan American Union, Washington, D. C., 1948; and *Methods of Computation of Statistics: II, Cost-of-Living Index Numbers*, International Labor Review, July 1948 (pp. 124-135).

TABLE 2.—Salient features of indexes of consumers' prices in six South American cities

Item	Asunción, Paraguay	Bogotá, Colombia	Caracas, Venezuela	Lima, Peru	La Paz, Bolivia	São Paulo, Brazil
Title of index.....	Cost of living.....	Cost of living.....	Retail prices of subsistence.	Cost of living.....	Cost of living.....	Cost of living.
Responsible agency....	Division of Economic Research, Bank of Paraguay.	National Directorate of Statistics, Office of the Controller General of the Republic.	Directorate of Statistics, Ministry of Public Works.	Directorate of Statistics, Ministry of Finance and Commerce.	Directorate of Statistics and Census, Ministry of Finance.	Division of Statistics and Social Documentation, Department of Culture, City Government of São Paulo.
Source of current indexes.	Bank of Paraguay (not published).	<i>Anales de Economía y Estadística</i> , Office of the Controller General. Bimonthly.	<i>Boletín Mensual de Estadística</i> , Directorate of Statistics.	<i>Boletín del Banco Central de Reserva del Perú</i> . Monthly.	<i>Revista Mensual</i> , Directorate of Statistics.	Distributed monthly in mimeographed form by Division of Statistics and Social Documentation.
Economic class represented.	Families of wage earners.	Families of wage earners.	Employees of commercial houses, Government employees, professional classes, and wage earners.	Families of wage earners.	Middle-class families.	Families of wage earners.
Base period.....	1938.....	February 1937.....	1933.....	1934-1936. Formerly 1913 (changed in 1944).	1931. Also December 1936.	1939.
Periodicity:						
Collection of prices.	Twice a month.....	Weekly.....	Twice a month.....	Monthly.....	Twice a month.....	Monthly.
Computation of index.	Monthly.....	Monthly.....	Monthly.....	do.....	Monthly.....	Do.
Initial date of index....	February 1947. Computed back to 1938. Replaced index begun in 1941.	1937.....	1939, as revised.....	1920.....	1936. Revised in 1937 with weights and calculated back to 1931.	1939.
Collection of prices: Staff responsible....	2 statistical employees of the Bank of Paraguay.	2 agents instructed by the Directorate of Statistics.	Employees of Directorate of Statistics.	3 agents.....	3 employees of Directorate of Statistics and Census.	30 to 40 part-time employees trained by the Division of Statistics.
Methods of collection.	Agents visit outlets.	Agents visit outlets.	Agents visit outlets. Agents determine quality. No provision for substitution if priced line disappears.	Agents visit outlets.	Agents visit outlets. When priced line disappears, agents make substitution.	Agents visit outlets. Agents determine quality. When priced line disappears, Division of Statistics makes replacement.
Verification of data.	Food prices checked with 3 families in neighborhood of store. Fuel prices checked by agents against their own experience.	Prices checked by (1) comparison with prices reported by city authorities, official price lists, and prices reported paid by workers; (2) control surveys of outlets not regularly canvassed; and (3) check by agents of each other's outlets.	(1).....	Official prices taken for some items.	Prices checked by comparison with "prices obtained for the same articles for the preceding months and with prices in different sectors of the free market." <sup>1</sup>	(1).
Selection of outlets.	10 food stores in wage-earner districts; 4 large downtown low-priced clothing stores; 8 fuel dealers; dwellings in wage-earner area.	209 food and charcoal outlets in principal wage-earner districts; 16 low-priced clothing stores in central market area.	Approximately 15 retail outlets, mostly in the main city market.	(1).....	Markets in middle-class areas and other outlets in central city.	City blocked off in sections for variety of neighborhood and adequate number of establishments in typical wage-earner areas.
Seasonal adjustment.	None.....	(1).....	None.....	None.....	None.....	None.
Number of items priced:						
Food.....	22 <sup>1</sup> .....	25 <sup>1</sup> .....	33 <sup>1</sup> .....	15.....	32 <sup>4</sup> .....	45 <sup>1</sup> .....
Clothing.....	20 <sup>6</sup> .....	4 groups <sup>6</sup> .....	None.....	7.....	8.....	10 <sup>6</sup> .....
Housing.....	1.....	3.....	do.....	1.....	3.....	3.....
Fuel and light.	3.....	3 <sup>7</sup> .....	1.....	( <sup>9</sup> ).....	5 <sup>8</sup> .....	5 <sup>10</sup> .....
Miscellaneous.	32.....	3.....	3.....	10.....	8.....	30 <sup>11</sup> .....

See footnotes at end of table.



TABLE 2.—Salient features of indexes of consumers' prices in six South American cities—Continued

Item	Asunción, Paraguay	Bogotá, Colombia	Caracas, Venezuela	Lima, Peru	La Paz, Bolivia	São Paulo, Brazil
Methods of computation:						
Average price.....	Simple arithmetic mean.	Simple arithmetic mean.	Simple arithmetic mean.	Simple arithmetic mean.	Simple arithmetic mean.	Mode.
General index.....	Group relatives obtained by Laspeyre's formula. <sup>12</sup> General index is simple arithmetic mean of group relatives.	Laspeyre's formula. <sup>12 13</sup>	Weighted mean of relatives. <sup>14</sup>	Laspeyre's formula. <sup>12</sup>	Laspeyre's formula. <sup>12</sup>	Weighted mean of relatives. <sup>14</sup>
Cost weights (in percent).	Unweighted.....	100.0.....	(15).....	100.....	(1).....	100.00.
Food.....		65.7.....		55.....		56.84.
Clothing.....		5.4.....		12.....		11.09.
Housing.....		16.2.....		18.....		16.10.
Fuel.....		5.8.....				4.64.
Miscellaneous.....		6.9.....		15.....		11.33.
Family expenditure study.	None. Weights based on estimated expenditures.	1936. Correctly prepared schedules returned totaled 327 from 750 distributed to families in wage-earner districts.	1939. Two surveys of family expenditures yielding 204 and 249 usable account books (mostly Government employees).	None. Weights based on estimates.	1937. Survey of expenditures of 100 middle-class families (mostly Government employees).	1936. Survey of 428 families of wage earners employed by city. Subsequent study in 1941, but weights unchanged.

<sup>1</sup> Information not obtained.<sup>2</sup> Methods of Computation of Statistics: II, International Labor Review, Vol. LVIII, No. 1, July 1948 (p. 125).<sup>3</sup> Includes green vegetables.<sup>4</sup> Includes tobacco.<sup>5</sup> Includes beer.<sup>6</sup> Includes women's clothing.<sup>7</sup> Coal, alcohol (nondrinkable), and matches; heat and light in "Housing."<sup>8</sup> Both fuel and light in "Miscellaneous."<sup>9</sup> Light in "Miscellaneous."<sup>10</sup> Light in "Housing."<sup>11</sup> São Paulo index uses separate subgroups for medical expenses, tobacco, articles for cleaning, furniture, transportation, and miscellaneous.<sup>12</sup> Laspeyre's formula:  $I_n = \frac{\sum p_n q_0}{\sum p_0 q_0} \times 100$ .<sup>13</sup> For Bogotá, relatives for clothing and housing groups computed by chain method:  $I_n = \frac{\sum p_n q_{n-1}}{\sum p_{n-1} q_{n-1}}$ .<sup>14</sup> Results are the same as those obtained by Laspeyre's formula.<sup>15</sup> Index for Caracas contains only charcoal, brooms, soap, and salt in addition to 33 food items.

# Recent Decisions of Interest to Labor<sup>1</sup>

## Wages and Hours<sup>2</sup>

*8-Hour Law—U. S. Bases in Foreign Countries.* The United States Supreme Court recently held<sup>3</sup> that the Federal 8-Hour Law does not apply to a contract for construction work in a foreign country, although the work was in connection with United States military bases there.

The 8-Hour Law, as amended, requires payment of one and a half times the basic rate of pay for all work in excess of 8 hours a day by laborers and mechanics employed by a contractor or subcontractor on a public work of the United States. Criminal penalties are prescribed for violations.

An American citizen, an employee of a contractor engaged in construction work for the United States at its bases in Iran and Iraq, sued his employer for overtime compensation alleged to be due under the 8-Hour Law. The employer admitted that the employee had worked over 8 hours on many days, but claimed (1) that the act did not give an employee a right to bring a civil action for overtime compensation, but only provided criminal penalties for its violation, and (2) that the act did not apply to this contract, since it involved work in a foreign territory. The New York Supreme Court held for the employee, and was reversed by the appellate division of the same court, which was in turn reversed by the New York Court of Appeals.<sup>4</sup>

<sup>1</sup> Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

<sup>2</sup> This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as interpretation of these acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

<sup>3</sup> *Foley Bros. v. Filardo* (U. S. Sup. Ct., Mar. 7, 1949).

<sup>4</sup> See Monthly Labor Review, May 1948 (p. 535).

The United States Supreme Court, in reversing the court of appeals, held that the act did not apply to work in foreign countries. It held that congressional legislation, unless a contrary intent appears, ordinarily is intended to apply only within the territorial jurisdiction of the United States. There was no indication, it stated, of a purpose to extend the coverage of the act beyond the United States. It was pointed out that there was no express inclusion of "territories" or "possessions" within its provisions as in provisions of the Fair Labor Standards Act. Therefore its prior decision<sup>5</sup> holding the latter act to apply to work in a United States base in Bermuda leased from Great Britain was held not binding in construing the 8-Hour Law.

The Court also pointed out that since the 8-Hour Law made no distinction between United States citizens and aliens, its extension to this case would extend it also to citizens of Iran and Iraq, if they happened to be working on United States public works. Congress obviously had not intended to regulate labor conditions in foreign countries where economic conditions different from those of the United States prevailed.

The legislative history of amendments to the 8-Hour Law indicated that its purpose was confined to improvement of domestic conditions. The 1912 amendment of the law to include "every" contract was to cure a previous defect in that it had not applied to work on private property.

Administrative interpretation of the act also indicated an intent not to apply it to foreign territory. Thus, suspension of its provisions during World War II was made only in United States territory, except for bases leased from Great Britain, when the leases contained special provisions for United States control. Although the Attorney General in 1905 ruled that the act applied to the Panama Canal Zone, a subsequent ruling in 1925 held it inapplicable to work for the American Embassy in London, and the Comptroller-General in 1912 ruled that it did not apply to United States contracts in foreign countries which may involve the use of foreign laborers.

Justice Frankfurter concurred with the result, but only on the ground that he thought the Court's decision holding that the Fair Labor Standards

<sup>5</sup> *Vermilya-Brown Co. v. Connell* (335 U. S. 377). See Monthly Labor Review, February 1949 (p. 151).



Act applied to the Bermuda base was wrong. If the Fair Labor Standards Act was to be interpreted as applicable to foreign territory, despite contrary administrative interpretation by numerous Government agencies, he thought the 8-Hour Law, which applied to "every" contract to which the United States is a party, should also be so interpreted.

*Production of Goods for Commerce—Inspectors.* The Court of Appeals for the Seventh Circuit held <sup>6</sup> that senior inspectors engaged in engineering inspection and testing of structural materials were within the coverage of the Fair Labor Standards Act, and that their employer could be ordered to pay them overtime compensation pursuant to the act.

These employees, who received over \$200 a month, were sent all over the United States to test steel, concrete, track materials, railroad cars and other vehicles, bridges, and other engineering equipment. They were assigned to specific tasks by their employer and worked without any supervision, in accordance with specifications as to the material and structural qualities sought to be obtained by the customers. After making the inspection, an inspector wrote reports to the employer's office, which were edited (but never revised) and sent to customers.

It was found by the trial court that a substantial part of the materials tested by the inspectors were used by the employer's customers as instrumentalities of commerce and in the production of other goods for commerce. In affirming the trial court's decision to compel payment of overtime compensation, the appellate court held that the facts shown above provided sufficient basis for a ruling that the inspectors were engaged in production of goods for commerce.

The court denied the employer's claim that the inspectors were exempt as administrative employees, since they had nothing to do with making management policies or with general business operations. They were merely skilled technicians—tools of management—in carrying out its policies in accordance with specifications and instructions which they had no part in framing.

*Enforcement—Procedure.* Employees working in

<sup>6</sup> *McComb v. Robert W. Hunt Co.* (U. S. C. C. A. (7th), Feb. 28, 1949).

a munitions plant operated by a private contractor for the United States Government sued to recover overtime compensation allegedly due under the Fair Labor Standards Act. The Federal district court tried the cases without a jury on an agreed statement of facts, and gave judgment denying recovery in an opinion which cited previous decisions of the Court of Appeals for the Fifth Circuit, and section 9 of the Portal-to-Portal Act.

The employees appealed on the ground that the decisions had been reversed by the United States Supreme Court and that section 9 of the Portal Act was not applicable. The employer relied on the Portal Act. Both parties signed an agreed statement of facts on appeal. This statement set forth that, for the purpose of the stipulations only, the employees were agreed to be engaged in commerce and production of goods for commerce unless the legal effect of the contract with the Government took them out of commerce; and that the allegations of the employees were true unless the Portal Act was held inapplicable.

The court of appeals <sup>7</sup> reversed the decision of the lower court and ordered a new trial, because the agreed statement of facts indicated that the cases were not submitted to the lower court on a record fully developing them and showing whether or not they were within the coverage of or the exemptions from the Fair Labor Standards Act. The parties were held to be attempting to take a short cut to secure an advisory opinion, which was the very thing condemned by the Supreme Court in reversing the decisions relied on by the employers. The fact that the denial of recovery by the lower court was final was held not to change the essentially hypothetical character of the opinion rendered.

*Time Worked, Theater Editor of Newspaper.* A Federal court of appeals held <sup>8</sup> that time spent in theaters by a theater editor of a newspaper to see plays which she reviewed was compensable working time under the Fair Labor Standards Act, notwithstanding any custom or understanding to the contrary.

The newspaper-employer introduced evidence to show that it had never previously paid any com-

<sup>7</sup> *McDonald v. Kershaw, Ltd.* (U. S. C. C. A. (5th), Feb. 25, 1949).

<sup>8</sup> *Republican Publishing Co. v. American Newspaper Guild* (U. S. C. C. A. (1st), Mar. 4, 1949).

pensation for time spent by theater editors watching plays, that the position of theater editor was much sought after although employees knew that time spent in the theater was uncompensated, and that the employee in question received the assignment with this understanding.

Affirming the decision of the district court, the court of appeals held that liability under the act did not hinge on whether the work was voluntary or agreeable to the employee, but rather on whether the worker was performing services for the benefit of the employer with his knowledge and approval. The act defines "employ" as to "suffer or permit to work." The employee was required to spend time at the theater to be able to review plays. Therefore the hours spent there were required to be included in computing overtime compensation due under the act.

*Walsh-Healey Act—Statute of Limitations.* On June 28, 1948, the United States brought suit in a Federal district court to recover from an employer liquidated damages for unpaid overtime compensation due his employees under the Walsh-Healey Act. Among the grounds on which the employer claimed the suit should be dismissed was that it was barred by section 6 of the Portal-to-Portal Act, which provides that in such cases suit must be brought within 2 years after the cause of action accrued. The court rejected<sup>9</sup> this argument on the ground that the cause of action did not accrue until 1947, when the Secretary of Labor affirmed the decision of the Wage and Hour Administrator against the employer. The complaint on which the decision was based was filed in 1944 for violations occurring in 1942 and 1943.

### Labor Relations

*Union Shop—State versus Federal Jurisdiction.* The United States Supreme Court held<sup>10</sup> that neither the original National Labor Relations Act nor the Labor Management Relations Act of 1947 deprived a State of power to regulate union-security agreements.

At the suggestion of both the U. S. Department of Labor and the War Labor Board, an employer in 1943 entered into a maintenance-of-membership contract with a union which had been previ-

ously certified by the NLRB as bargaining representative for the majority of the plant's employees. In April 1946, pursuant to this contract, the employer discharged an employee for refusal to pay union dues. The employee filed a complaint with the Wisconsin Employment Relations Board, charging an unfair labor practice under Wisconsin law, which prohibited discharge in such cases unless an all-union agreement had been approved by a vote of two-thirds of the employees. The maintenance-of-membership agreement in this case had never been voted on. The Wisconsin board ordered the employer to reinstate the employee, who was awarded back pay. On appeal, this order was affirmed by the Wisconsin Circuit Court, and in turn by the Wisconsin Supreme Court.

The Supreme Court affirming the State court's decision, rejected the argument that the original National Labor Relations Act gave the NLRB exclusive power to prevent unfair labor practices and prevented a State from prohibiting any such practices. The Court stated that the unfair labor practices over which the NLRB was given jurisdiction in section 10 (a) were, by the express terms of the section, limited to practices listed in section 8 of the act, and did not include other practices made unfair by State law. Section 8 (3), preventing discrimination in employment, provided that nothing in the act or in other United States statutes should prevent maintenance-of-membership agreements. Both the plain words and the legislative history of this section indicated, the Court stated, that it was not intended to establish the closed shop in a State forbidding such agreements. The War Labor Board's advice in favor of a maintenance-of-membership clause here was not by virtue of the provisions of the act, but pursuant to the Federal war power. This was held to be no longer controlling at the time of the Wisconsin board's order, since the War Labor Board had ceased to exist.

The Labor Management Relations Act was held not to have changed the situation. Section 10 (a), giving the NLRB power to cede jurisdiction over unfair labor practices to a State pursuant to agreement, was by its own terms limited to States having laws not inconsistent with the provisions of the act. This section was held to provide only for cases in which State and Federal provisions overlapped. The Court pointed out that section 14

<sup>9</sup> *U. S. v. Hudgins-Dize Co., Inc.* (U. S. D. C., E. D. Va., Feb. 18, 1946).

<sup>10</sup> *Algoma Plywood & Veneer Co. v. Wisconsin ERB* (U. S. Sup. Ct., Mar. 7, 1949).



of the act stipulated that nothing therein should be construed to authorize the execution or application of union-security agreements when such agreements were prohibited by State law. The argument that the section did not apply to State laws merely regulating, but not prohibiting, union-security agreements was rejected; the legislative history of the act clearly indicated, the Court said, that section 14 should not be construed to authorize any application of such an agreement where such application was prohibited by State law.

Two justices dissented, on the ground that the maintenance-of-membership contract was valid under the war power until its termination, and not merely until the dissolution of the War Labor Board, and that union-security contracts were permitted by section 8 (3) of the National Labor Relations Act as interpreted by the NLRB.

*Jurisdictional Dispute.* The NLRB handed down its first decision<sup>11</sup> interpreting the jurisdictional dispute provisions of the amended National Labor Relations Act. Section 8 (b) (4) (D) makes it an unfair labor practice for a union to engage in a strike or boycott for the purpose of forcing an employer to assign particular work to employees in a particular labor organization. Section 10 (k) empowers and directs the NLRB to hear and determine disputes out of which unfair labor practice charges under section 8 (b) (4) (D) have arisen.

An employer filed charges under section 8 (b) (4) (D) against the International Association of Machinists (independent) for picketing to force the employer to hire machinists only through that union. The IAM claimed that an industry-wide closed-shop contract in the shipping industry covered such workers although Local 1304, United Steelworkers (CIO), held a closed-shop contract specifically covering these employees. The case involved a long history of conflict between the IAM and the Steelworkers for jurisdiction over machinists' work in the San Francisco Bay area. The Board held that by previous collective-bargaining agreements and its own decisions, the Steelworker's union—not the IAM—was recognized by the employer as exclusive bargaining agent for its machinists and as having a right to preferential hiring. However, the right of the Steel-

workers to preferential hiring was held to have lasted only to July 1, 1948, the date of expiration of the union-security contract.

Two Board members dissented on the ground that section 10 (k) applied only to disputes between trade or craft groups in which the employer was neutral—not to disputes over the interpretation of collective-bargaining agreements concerning representation and union security, in which the employer favored one union over the other. In any event, one member stated, the determination had no force and was purposeless.

The majority replied by pointing out that the IAM was put under obligation to cease picketing on pain of issuance of an unfair-labor-practice complaint.

*Closed Shop Held Discriminatory:* A work stoppage directed by unions to compel an employer to sign a closed-shop agreement was held<sup>12</sup> by the NLRB to be an unfair labor practice. The strike, the Board stated, came within the meaning of section 8 (b) (2) of the amended National Labor Relations Act, as an attempt to cause the employer to discriminate against employees.

In negotiations for a new contract with local stores of the employer, which operated a country-wide chain of stores, officers of the union demanded a closed-shop clause. The employer refused the demand, on the ground that such a clause would be illegal. To the question whether union would allow employees to work after the old contract expired, while a new contract was being negotiated, the secretary-treasurer of the local union replied: "No contract, no work." The vice president of the international union, who was present, supported this statement and said that the union would give the employer 2 days to sign a closed-shop contract. The employer's manager secured from the secretary-treasurer of the local the temporary assistance of some employees, but most employees in the 11 stores stopped work the following day.

The NLRB held that section 8 (b) (2) of the act prohibited any attempt by a union to cause an employer to discriminate against employees in violation of section 8 (a) (3). This section stated it to be an unfair labor practice for an employer to encourage or discourage membership in any labor

<sup>11</sup> *In re Lodge 66, International Association of Machinists* (81 NLRB No. 169, Feb. 1949).

<sup>12</sup> *In re Amalgamated Meat Cutters and Butcher Workmen of North America* (81 NLRB No. 164, Mar. 1, 1949).

organization, "by discrimination in regard to hire or tenure of employment or any term or condition of employment." It was pointed out that the Board had previously held<sup>13</sup> a demand for a closed shop supported by a strike to be a violation of section 8 (b) (2).

The fact that there was no picketing, payment of strike benefits, waiver of union dues, nor formal approval of the work stoppage by the international union was held not to prevent the stoppage from being a strike. Stoppage by reason of expiration of a collective-bargaining agreement was expressly included in the act's definition of a strike. It had been previously pointed out<sup>14</sup> that a strike could be informally called by stating an understanding of "no contract, no work."

Both the local and the international union were held to be responsible for the strike. The secretary-treasurer was shown to be the dominant officer of the local union, as its bargaining negotiator, signer of collective agreements, and the official to whom the employer turned for temporary help. He was thus held to be authorized to bind the union by his acts. The vice president of the international union was also held to be authorized to bind that organization, since its constitution provided that each vice president had charge of a certain district. While there was no direct evidence that he was in charge of this district, it was held to be inferable from the contents of his column in a local newspaper and his participation in meetings with the employer.

Statements made by the union officers at these meetings, it was held, were not protected as the expression of views under section 8 (c), since they amounted to directions or verbal acts rather than expression of opinion. On the other hand, the strike in violation of section 8 (b) (2) was held not to constitute restraint or coercion under section 8 (b) (1).

In another case, the NLRB held<sup>15</sup> that a contract for preferential hiring of union workers, as well as a closed-shop agreement, was prohibited by section 8 (a) (3) of the amended National Labor Relations Act, and was not a bar to determination of bargaining representative under the one-election a year rule.

<sup>13</sup> *In re National Maritime Union* (78 NLRB No. 137).

<sup>14</sup> *U. S. v. United Mine Workers* (77 F. Supp. 563).

<sup>15</sup> *In re American Export Lines, Inc.* (81 NLRB No. 224, Mar. 11, 1949).

*Employer Unfair Labor Practices.* (1) An employee was discharged for initiating a petition signed by 34 employees to the effect that their immediate supervisor was unsatisfactory. This was held<sup>16</sup> to be discriminatory and in violation of section 8 (a) (3) of the NLRA, even though the employee's initiation of the petition was caused by his personal resentment against the supervisor, with whom he had had an argument because of his infraction of discipline. The Board held that the signing of the petition was concerted employee activity for mutual aid or protection with respect to conditions of work, and was therefore protected by the act. It admitted that the selection of supervisory personnel was a management prerogative, without regard to the preference of the employees to be supervised. But the employees, the Board held, were entitled to express their views to the extent that selection of a supervisor directly affected their wages, hours, and working conditions.

Two Board members dissented on the ground that signing of the petition was completely organized by one individual because of personal pique. The majority replied that concerted activities should be protected without regard to their motive.

(2) The Board held<sup>17</sup> that discharge of a union leader for causing a work stoppage in his department in protest against the discharge of another employee was discriminatory even though the other employee was dismissed for cause. Although the employer was under no duty to bargain with the union, which was not the exclusive bargaining agent, the union was held to have a right to protest a discharge for cause. Even if another union had been bargaining agent, the Board stated, this union could have protested the discharge under section 9 (a) of the amended NLRA, which permits employees to present grievances to their employer.

In the same case, the Board held that while the employer was protected by the free-speech provisions of the amended act in making vehement statements against the union prior to an election, he was not justified in announcing a hospitalization plan just prior to the election.

(3) An employer's acceleration of the date of

<sup>16</sup> *In re Joanna Cotton Mills* (81 NLRB No. 230, Mar. 14, 1949).

<sup>17</sup> *In re Agar Packing and Provision Corp.* (81 NLRB No. 199, Mar. 9, 1949).



distribution of July 4 vacation-pay checks to the day before a representation election was held<sup>18</sup> by the NLRB to constitute such interference with the election as would be grounds for setting it aside. The checks were usually presented to employees the last pay day before July 4, which that year would have been July 2, the day after the election. Instead, the checks were distributed on June 30 by the foremen, rather than by the usual paymaster. Vacation pay was distributed separately from other pay, another departure from the usual practice. The employer claimed that the early distribution of the vacation pay had no effect on the election because the employees knew they would get the checks in any event. But the Board held that the calculated timing of the announcement of the benefits could have but one effect—inducing employees to refrain from organizational activities—and constituted an implied threat that vacation benefits were at stake in the election.

One Board member thought the timing of the vacation-pay announcement was not by itself sufficient to set the election aside, but concurred in the decision because of other employer activities interfering with the election, such as asking employees how they intended to vote, threatening to close the plant, and threatening an employee with discharge if he voted for the union.

(4) Reversing the NLRB, a Federal court of appeals held<sup>19</sup> that the action of an employer in taking an informal poll of employees to ascertain whether they wished to be represented by a union did not, in itself, constitute such interference with labor-union activities as to be an unfair labor practice. The employer, a sawmill operator, before ordering some lumber, asked his employees to come to his office and mark ballots with pencil, in secret, as to their preference for or against a union. The employees voted against the union. The court held that, since the previous history of the plant showed no hostility to unions or interference with union activities on the part of the employer, the taking of the poll could not be considered an implied threat against union membership.

*Secondary Boycotts.* The NLRB considered further the interpretation of section 8 (b) (4) (A)

of the amended National Labor Relations Act prohibiting secondary boycotts. It held<sup>20</sup> that a trade-union council violated section 8 (b) (4) (A) by maintaining a contractor's name on an "unfair" list after the enactment of this provision in 1947, since the list was calculated to make employees withdraw their services from, and to prevent their employer from doing business with, the contractor. The trial examiner had absolved the council of liability for actions of a constituent local union which enforced the unfair list on the ground that the council had no power to discipline members of affiliated unions. But the Board reversed this ruling, on the ground that the council's liability did not hinge on its power to discipline members, but on its cosponsorship of the unfair list with local unions. The maintenance of the unfair list was held by itself to "induce" and "encourage" employees within the meaning of section 8 (b) (4) (A). That the unfair list was made before enactment of the secondary boycott prohibitions, and that the council had since taken no affirmative action concerning it, were circumstances held not to preclude the liability of the council, as it continued to recognize the list as operative, and affiliated local unions continued to enforce use of the list. The action of a local in ordering two employees of a subcontractor off work on a construction job for a general contractor, and the fining of those workers by a local union agent, were held to be prohibited by the secondary boycott provisions.

*Grievances—Union Representing Minority.* A Federal district court enjoined a union from directing a strike for recognition as bargaining agent of employees of a retail store. Another union had been certified as bargaining agent by the NLRB, and the court found the strike to be an unfair labor practice. After issuance of the injunction, the union's attorney attempted to secure immediate reinstatement of strikers who had been replaced, but was unsuccessful. Thereupon the union picketed the plant and tried to persuade other employees to strike. The court held that in these activities the union was guilty of contempt of court.

On appeal, the Court of Appeals for the Second Circuit held<sup>21</sup> that the union was not in contempt of the injunction. The court stated that certain

<sup>18</sup> *In re Craddock-Terry Shoe Corp.* (81 NLRB, No. 13, Mar. 16, 1949).

<sup>19</sup> *NLRB v. Kingston* (U. S. C. C. A. (6th), Feb. 21, 1949).

<sup>20</sup> *In re Bricklayer's Union* (82 NLRB No. 27, Mar. 15, 1949).

<sup>21</sup> *Doubs v. Retail Store Union* (U. S. C. C. A. (2d) Mar. 4, 1949).

words of the injunction which prohibited forcing the employer to recognize the union as agent for "any of" the employees in the union, went further than the terms of section 8 (b) (4) (C) of the LMRA. It refused to read the injunction literally, but construed it to prevent only such activities as were prohibited by the act.

The court held that the strike in behalf of a portion of the former employees was not in violation of section 8 (b) (4) (C), but was protected by section 9 (a), which permitted any individual or group of individuals to present grievances to their employer. This right to present grievances was held to include the right to adjust such grievances, provided they were not covered by a collective-bargaining agreement between the certified union and the employer. The certified union was held to have the power to effect relations between the employer and any employees in the unit by contract. But until this power was exercised, the court held, there was nothing to prevent a rival union from acting in behalf of a group of employees in presenting and adjusting grievances. The right to present grievances was held to include the right to strike.

### Veterans' Reemployment

*Seniority, Railway Employees.* A veteran, who had been an extra fireman for a railroad prior to his induction, sued after his reinstatement, to compel his employer, the railroad company, to recognize his seniority over other employees. The employer asked that the suit be dismissed because the veteran had not named as parties (1) other employees whose seniority would be reduced if his claim were granted, and (2) the railroad brotherhood with whom the employer had a collective-bargaining agreement containing seniority provisions; and because the suit was not filed within a year after the veteran's reinstatement.

The district court dismissed the suit because of the veteran's failure to name employees affected by his claim. On appeal by the veteran, the court of appeals reversed<sup>22</sup> the decision of the district court, and sent the case back for further proceedings.

The appellate court held that the veteran was

not required to name all other parties affected by his suit. To do so would be expensive and cumbersome. The statutory issue was between the veteran and the employer and could be determined without bringing in other employees. However, the court also stated that the other employees would lose none of their rights and would not be personally bound by the district court's decision.

The issue of a railroad veteran's seniority was unique, the court said, because it involved the scope of jurisdiction of the Railroad Adjustment Board as affected both by the reemployment statutes and by the collective-bargaining agreements. Normally, courts refuse to decide disputes involving railroad union contracts until the Adjustment Board established under the Railway Labor Act has passed on them. A veteran, however for at least 1 year after reinstatement, has special standing as regards court action. The United States district courts must, if proper facts are shown, specifically require restoration of the veteran according to law. Therefore if the District Court, to which this case is remitted for trial, orders the veteran's name to be placed ahead of another veteran on the seniority list, the order should be made without prejudice to the authority of the Railroad Adjustment Board to decide any grievances presented by other employees affected by the order. In such proceedings on the grievances, the court of appeals further said, presumably the Railroad Adjustment Board will give effect to the court judgment that the veteran is to be restored without loss of seniority. However, the Board "can better determine what, in detail, that seniority was and is, and how it [the seniority] is to be effected under the collective agreement" with the union.

### Decisions of State Courts

*Arkansas—Representation of Members by Union.* The Arkansas Supreme Court held<sup>23</sup> that in bringing suit against an employer to compel him to abide by a union-security agreement, the president and secretary of a labor union could bring the action in their own names as representatives of other union members. It was well established, the court pointed out, that a suit could be brought either by or against a union as representative of its members without naming as parties all union

<sup>22</sup> *U. S. et rel. Denner v. Missouri Kansas & Texas R. R. Co.* (U. S. C. C. A. (5th), Jan. 13, 1949).

<sup>23</sup> *Smith v. Arkansas Motor Freight Lines* (Ark. Sup. Ct., Feb. 7, 1949).



members, when they were numerous and it was impractical to bring them all before the court. An injunction was held to be a proper remedy for breach of a union-security agreement.

*Iowa—Injunction; Contempt.* A court had jurisdiction to enter a contempt decree against striking members of a union against which the court had issued an injunction prohibiting unlawful picketing, although the union members were not named in the injunction suit, a State supreme court held.<sup>24</sup> The injunction was issued against the union and certain of its officers and members, who were properly served with a copy of the decree. Other union members who were not so served or named but later engaged in picketing, were held guilty of contempt. In sustaining the lower court's decision, the supreme court pointed out that the rules of civil procedure permitted suits against representatives of members of a class and made the court's decree in such a case binding upon all members of the class represented. A suit against a labor union and its officers was held to be a class suit within the meaning of these rules, and members not actually served were held subject to the decree, if they had actual knowledge of it. Such knowledge was held to exist because of announcements in the newspaper and over the radio.

*Mississippi—Mass Picketing.* The Mississippi Supreme Court held<sup>25</sup> that mass picketing by striking employees and nonemployees, all members of the same union, who engaged in violence, threats, and intimidation against strikebreakers entering the employer's plant, could be enjoined by a court of equity.

A lower court had dismissed a bill for an injunction on the grounds, among others, that the acts sought to be prohibited were crimes, which equity would not enjoin, and that a State court could not enjoin practices which affected interstate commerce. The supreme court, reversing this decision, held that criminal acts could be enjoined if they constituted a continuing trespass and would do irreparable injury to the employer's property; that a State could, by its own police

power, prevent unlawful interference with business and property, whether or not interstate commerce was affected. In this power the State was held not to be prohibited by either the amended National Labor Relations Act or the commerce power of the Federal constitution.

Mass picketing was held to be unpeaceful and illegal, even though no actual violence or physical assaults were shown, if threats and other means of intimidation deprived those against whom they were directed of the power to exercise their own will. An injunction could be granted against all picketing in which previous actions of picketers had clearly indicated that further picketing would result in violence or intimidation. The right of freedom of speech was held not to prevent the courts from protecting against coercion. To deprive the laborer and his employer of the right to contract for work was held to violate the due process clause of the fifth amendment to the Constitution.

*Utah—Strike Vote; Peaceful Picketing.* A State law made it an unfair labor practice for employees—individually or in concert—to engage in, promote, or induce picketing (not constituting an exercise of constitutionally guaranteed free speech) boycotting, or other strike activity—unless a majority of the employees in the bargaining unit have voted by secret ballot to call a strike.

The State supreme court held<sup>26</sup> that this law did not require a strike vote before peaceful picketing, without intimidation or coercion, could be engaged in, when the object of the strike was to induce the employer to negotiate a new contract with the union. In this instance, the picketing consisted of parking a car driven by the union's business agent near the employer's road-construction activities, with notices that a strike was called. Several employees congregated near the car and hailed other employees as they went by, but there was no proof of coercion or violence. The court held that the objective of the picketing was lawful, and that since it was peaceful, it was, within the meaning of the statute, constitutionally protected free speech.

<sup>24</sup> *Packing House Workers v. Boynton* (Iowa Sup. Ct., Feb. 8, 1949).

<sup>25</sup> *Southern Bus Lines v. Street Railway Employees* (Miss. Sup. Ct., Feb. 14, 1949).

<sup>26</sup> *Union of Operating Engineers v. Utah LRB* (Utah Sup. Ct., Feb. 25, 1949).

# Chronology of Recent Labor Events

## March 13, 1949

A NATIONAL LABOR RELATIONS BOARD trial examiner, in the case of the *International Brotherhood of Teamsters, Chauffeurs, Warehousemen & Helpers of America (AFL)* and *Schultz Refrigerated Service, Inc.*, announced that the union had violated the secondary boycott ban of the Labor Management Relations Act of 1947 by picketing the employer's trucks on customers' premises, at the time that the union had a primary dispute with the employer.

On February 18, the NLRB, in the *Wadsworth* case, had banned peaceful picketing in support of an illegal boycott. (Source: NLRB release R-167, Mar. 13, 1949.)

## March 14

THE OPTICAL AND INSTRUMENT<sup>W</sup>orkers' Organizing Committee of the Congress of Industrial Organizations formed the United Optical and Instrument Workers of America (CIO). The international union was formed in order that optical and instrument workers might be able to use NLRB facilities. The NLRB had ruled the OIWOC to be ineligible to do so, because the CIO president and top officers had not signed the non-Communist affidavit required under the LMRA of 1947 (see Chron. item for Jan. 31, 1949, MLR, Mar. 1949). (Source: New York Times, Mar. 15, 1949.)

## March 15

THE PRESIDENT, by Executive Order No. 10045, created an emergency board to investigate a dispute between the Wabash Railroad Co. and the Ann Arbor Railroad Co. and certain of their employees represented by four unions of railroad workers. (Source: Federal Register, vol. 14, No. 52, Mar. 18, 1949, p. 1227.)

On March 22, the unions agreed to end their 8-day stoppage (for discussion, see MLR, Apr. 1949, p. 433). (Source: Labor, Mar. 26, 1949.)

## March 18

THE NLRB, in the case of *Grauman Co.* and *Denver Building and Construction Trades Council (AFL)* and two affiliated unions, held unanimously that a United States District Court ruling in an injunction proceeding under the LMRA of 1947 is not binding upon the Board when it

is making its own determination on the case. The Board stated: "We are satisfied that the injunction provisions of the act establish merely an ancillary district court proceeding, in aid of the primary proceeding before the Board." (Source: NLRB release R-169, Mar. 18, 1949.)

## March 20

THE 16 "nonoperating" railroad unions, representing about 1 million workers, and the railroads settled their 11-month dispute, in conformity with the terms recommended on December 17, 1948, by the President's emergency board (see Chron. item for Dec. 17, 1948, MLR, Feb. 1949). The 40-hour week with no reduction in pay is to become effective on September 1 and an hourly wage increase of 7 cents is retroactive to October 1, 1948. (Source: AFL Weekly News Service, Mar. 22, 1949; for discussion, see MLR, Apr. 1949, pp. III and 433.)

## March 23

THE PRESIDENT'S Conference on Industrial Safety opened in Washington, D. C. (for discussion, see p. 529 of this issue). The groundwork for this meeting had been laid in September (see Chron. item for Sept. 29, 1948, MLR, Nov. 1948). (Source: Program of the President's Conference on Industrial Safety, Mar. 23-25, 1949.)

THE NLRB, in the case of the *Grand Rapids, Mich., Building and Construction Trades Council (AFL)*, *Local No. 1 of the Bricklayers Union (AFL)*, and *Osterink Construction Co.*, held that the council violated the LMRA of 1947 by maintaining a list of "unfair employers" as a means of encouraging employees to violate the secondary boycott ban of that law. (Source: NLRB release R-170, Mar. 23, 1949.)

## March 24

THE NLRB, in the case of *Local No. 1796 of the United Brotherhood of Carpenters and Joiners of America (AFL)* and *Montgomery Fair Co.*, unanimously held that the local union had violated the secondary boycott ban of the LMRA of 1947 by picketing the department store at which a building contractor was employing nonunion carpenters on a renovation project. (Source: NLRB release R-171, Mar. 24, 1949.)

## March 27

THE NLRB, in the case of *Bibb Manufacturing Co.* and *Textile Workers Union of America (CIO)*, announced that the employer had violated the National Labor Relations Act by causing the police of a "company town" to maintain surveillance over the union organizers and union activities of its employees. The Board further found the employer guilty of illegally coercing and restraining its employees by the circulation of an anti-union "newspaper," which contained statements inciting physical violence. (Source: NLRB release R-172, Mar. 27, 1949.)



**March 28**

THE MEMBERS of the United Mine Workers of America (Ind.) ended their 2-week memorial holiday (see Chron. item for Mar. 11, 1949, MLR, Apr. 1949), and returned to work in the bituminous-coal and anthracite mines east of the Mississippi River. (Source: UMW Journal, Apr. 1, 1949; for discussion, see MLR, Apr. 1949, pp. III and 432.)

THE NLRB, in the case filed against *Walter J. Mentzer and Local No. 31 of the Plasterers Union (AFL)* by *George E. Wochley*, refused to take jurisdiction over a \$33,000-a-year contracting business in the building industry, because the business was confined to Pennsylvania, and all of Mentzer's purchases for his plastering business were made in that State. Wochley charged that he had been discharged by Mentzer under an illegal closed-shop contract with Local 31. (Source: NLRB release R-173, Mar. 28, 1949.)

**March 29**

THE NLRB ruled unanimously against the *Printing Specialties and Paper Converters Union, Local 388 (AFL)* for having violated the secondary-boycott ban of the LMRA of 1947 by having its pickets "follow the products" of a struck employer to the premises of other employers. (Source: NLRB release R-176, Mar. 29, 1949.)

**March 30**

THE PRESIDENT approved the Housing and Rent Act of 1949, which extends rent control 15 months beyond the expiration date (March 31) of the 1948 legislation (see Chron. item for Mar. 30, 1948, MLR, May 1948). (Source: White House release of Mar. 30, 1949; for discussion, see MLR, Apr. 1949, p. IV.)

On March 31, the President approved a stop-gap, 1-month extension of rent control in the District of Columbia. (Source: Congressional Record, vol. 95, No. 54, Apr. 1, 1949, p. D251.)

**March 31**

JOINT COMMITTEES of the Brotherhood of Locomotive Engineers (Ind.) and the Brotherhood of Locomotive Firemen and Enginemen (Ind.) signed a merger plan, which is subject to membership referendum. (Source: Labor, Apr. 9, 1949.)

**April 1**

THE NLRB, in the case of *G. H. Hess, Inc. and International Ladies' Garment Workers' Union (AFL)*, set aside a collective-bargaining election because of pre-election threats made by a union organizer to an employee. (Source: NLRB release R-178, Apr. 1, 1949.)

THE NLRB, in the case of the *International Association of Machinists (Ind.)* and the *General Box Co.*, held that an employer's recognition of a union is not as positive as a

formal certification of the union. It ordered a referendum within 30 days under the LMRA of 1947. (Sources: NLRB release W-80, Apr. 6, 1949, p. 6, and New York Times, Apr. 7, 1949.)

**April 3**

THE MEMBERS of the International Typographical Union (AFL) voted to reject the Chicago Newspaper Publishers Association offer of a \$10 a week wage increase. The offer was made in order to settle the strike which started on November 24, 1947 (see Chron. item for Mar. 29, 1948, MLR, May 1948), among composing room employees of five Chicago daily newspapers. (Source: New York Times, Apr. 4, 1949.)

**April 4**

THE SUPREME COURT of the United States, in the case of *Giboney v. Empire Storage and Ice Co.*, upheld the power of the State of Missouri to prevent picketing of an ice plant to stop the sale of ice to nonunion peddlers. The opinion stated that "the basic issue is whether Missouri or a labor union has paramount constitutional power to regulate and govern the manner in which certain trade practices shall be carried on in Kansas City." (Source: U. S. Law Week, vol. 17 LW, p. 4307, Apr. 5, 1949.)

**April 7**

THE NLRB, in the case of *Local 760 of the International Brotherhood of Electrical Workers (AFL)* and *Roane-Anderson Co.*, unanimously upheld a trial examiner's ruling (see Chron. item for Nov. 5, 1948, MLR, Dec. 1948) that when 114 out of 115 employees quit work individually within 36 hours, it constituted a strike under the LMRA of 1947. (Source: NLRB release R-180, Apr. 7, 1949.)

**April 8**

THE NLRB ruled that the CIO Telephone Workers Organizing Committee is "an autonomous, self-governing labor organization," and as such is entitled to bring cases before the Board. (Source: NLRB release R-181, Apr. 8, 1949.)

**April 11**

THE EMERGENCY FACT FINDING BOARD, created by the President on January 28, 1949, in Executive Order No. 10032, refused the claim of the Brotherhood of Locomotive Engineers (Ind.) against the Akron, Canton & Youngstown Railroad Co. and certain other carriers for an extra engineer on Diesel locomotives. The board concluded that there was no merit to the engineers' contention that such employees would make a significant contribution to safe and efficient operation. (Source: Federal Register, vol. 14, No. 20, Feb. 1, 1949, p. 429, and Report to the President by the Emergency Board appointed Jan. 28, 1949 (No. 68) dated Apr. 11, 1949.)

# Publications of Labor Interest

## Special Reviews

*European Ideologies: A Survey of 20th Century Political Ideas.* Edited by Feliks Gross. New York, Philosophical Library, 1948. 1,075 pp., bibliographies. \$12.

Subjects of the twenty-seven chapters of *European Ideologies* range from the totalitarian systems (fascism, nazism, communism, falangism) to anarchism, syndicalism, and anarcho-syndicalism. The periphery of political ideology is represented by such topics as "Catholicism and Politics" and "Zionism." The volume combines analysis of ideologies and programs, of doctrinal developments and movements for embodying ideas in political action. Some of the chapters are mainly concerned with policies, as chapter 11, on the "destinies" of the Russian peasants. The essays are primarily political; there is hardly any reference, for example, to such basic ideas as those originating in the Malthusian doctrine and later centering around the maintenance of a balance between population and resource utilization.

Most of the authors are now members of the faculties of American universities and colleges. Their essays, however, are not the product of ivory-tower thinking. The book is not a discussion of the pros and cons of this or that ideology. There is no effort to avoid the making of "value judgments" as beyond the realm of scientific thinking. Some of the authors are exiles; many of them have had an active part either in supporting or in opposing the movements of which they write.

Totalitarian systems are discussed with a view to a better understanding of their origins and characteristics but they are condemned not only as illiberal but as essentially immoral, antisocial, and destructive. There are differences of opinion regarding religious authoritarianism, but in general there is acceptance of a basic distinction between religious and political ideologies.

The discussions of liberalism are of special interest. The chapter devoted specifically to the subject is Gotesky's "Liberalism in Crisis." This traces the evolution of liberalism from the ancient Greek city-states to contemporary society and identifies it today with the two currents of political democracy and the reformist socialism of the

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

labor movement; it is "the final logical culmination of the drive of our liberal and socialist ancestors for a world free of tyranny and exploitation." But the author, bleakly pessimistic, sees no possibility of the survival of liberalism against the onslaughts of Communist totalitarianism. His reasons for his fears reflect mainly the European background of caste, authoritarianism, and rigorous limits of resources in relation to population; they are derived in part from the merely cheerful optimism (and frequent disillusion) of many liberals. Far more significant are other chapters which point out the obstacles and at the same time provide a basis for a sturdy and positive optimism. Noteworthy are the three concluding chapters. Not too clearly recognized, however, is the conception that liberalism is essentially an attitude or point of view, not a program either capitalistic or socialistic; that liberals may disagree as to the "best" policy while working together for the carrying out of programs freely or "liberally" adopted; and that the fruits of liberalism are the chief defense against totalitarianism.

The role of workers in ideologies and political movements is discussed specifically in chapters on trade-unions, cooperatives, socialism, and agrarianism. The final chapter, "Humanism and the Labor Movement," by Sidney Hook, states that the philosophy of the labor movement is "vague and implicit" and expressed in action before articulate formulation. Its aim is basically the "humanizing" of men; it "comes to life in the actual participation of the citizen-worker in the activity of his job, his trade-union, his community." Labor's ideal has been essentially democratic; and "the labor movement forgets at its peril that democracy begins at home."

—W. B.

*Union Guy.* By Clayton W. Fountain. New York, Viking Press, 1949. 242 pp. \$2.75.

This book combines an autobiography with selected excerpts from the history of the International Union, United Automobile, Aircraft, and Agricultural Implement Workers of America, CIO. The implication that the author's life is tied to that of the union is freely admitted by him. Most historians would insist that such an intimacy would involve problems of perspective, but Mr. Fountain has signed the following disclaimer: "It does not represent the official viewpoint of my union, the UAW-CIO, or any of its top leaders." Even those who might still question its objectivity cannot gainsay its warmth and color.

Mr. Fountain is a native of the Upper Peninsula of Michigan. As a youth, he migrated to Detroit during the boom and went broke during the bust. He took part in the early, half furtive, organizational efforts of the auto workers. In 1937 he joined the Communist Party, leaving it in 1938 convinced that "there was no such thing as freedom of thought within the Communist movement." After a brief period of stumbling to readjust himself, he worked with the anti-Communist forces in the union and is currently an editor of its official paper.

The word pictures he draws of the gigantic organizational strikes of the UAW-CIO, of the factional fights of union leaders, of the half-forgotten or never-understood despair



of unemployment, while perhaps not satisfying the historian's code do effect a broad generalization from which it is possible at least to understand some of the social phenomena of our times.

### Child Labor

*Child Labor Trends in an Expanding Labor Market, 1946-48.* By Ella Arvilla Merritt and Edith S. Gray. Washington, U. S. Department of Labor, Wage and Hour and Public Contracts Divisions, Child Labor Branch, 1949. 7 pp., charts. (Reprinted from Monthly Labor Review, December 1948.) Free.

*State Child-Labor Standards: A State-by-State Summary of Laws Affecting the Employment of Minors Under 18 Years of Age.* By Lucy Manning and Norene Diamond. Washington, U. S. Department of Labor, Bureau of Labor Standards, 1949. 182 pp. (Bull. No. 98.) Free.

*Accident Frequency to Minors in Illinois, 1942-48.* By Joseph A. Paskiewicz. (In Illinois Labor Bulletin, Illinois Department of Labor, Chicago, March 1949, pp. 6, 7, charts.)

### Cost and Standards of Living

*The Cost of Clothing: 1914 and 1948.* By Laurence D. De Trude and Wistaria Nishimura. (In Management Record, National Industrial Conference Board, Inc., New York, March 1949, pp. 100-103, charts.)

*What We Spend for Services: Now vs. Then [1929-47].* By Frederick W. Jones and Anita R. Kopelson. (In Conference Board Business Record, National Industrial Conference Board, Inc., New York, February 1949, pp. 38-44, charts.)

*Helping Families Plan Food Budgets.* Washington, U. S. Department of Agriculture, Bureau of Human Nutrition and Home Economics, 1948. 16 pp. (Department of Agriculture Miscellaneous Publication No. 662.) 15 cents, Superintendent of Documents, Washington.

*Cost of Living for Women Workers in New York State, 1948.* New York, State Department of Labor, Division of Research and Statistics, 1949. 10 pp.; processed. (Special Labor News Memorandum No. 13.)

*British Standard of Living.* By Mark Abrams. London, Bureau of Current Affairs, 1948. 19 pp., charts. (Current Affairs, No. 63.)

Popular discussion of prewar and postwar family expenditures of the urban working class and of middle-class salaried workers. The data on prewar expenditures of the former group are from a Ministry of Labor survey made in 1937-38; for 1947-48, the author has constructed a budget, using, for food expenditures, ration amounts times controlled prices, and for drink, tobacco, and clothing, unpublished market research surveys.

*Family Expenditure [in Great Britain] in 1947: Part I, Income and Expenditure of Non-Food Items; Part II, Outlay on Food and Nutritional Intake.* By T. Schulz. (In Bulletin of Oxford University Institute of Statistics, Oxford, England, November 1948, pp. 353-372; December 1948, pp. 401-423. 2s. 6d. each.)

*Report on an Inquiry into Family Budgets of Industrial Workers in Delhi City.* By S. R. Deshpande. Delhi, Manager of Publications, 1948. 73 pp. Rs. 2.

One of a series of reports for various cities and Provinces, prepared by the Government of India as a basis for computing new cost-of-living indexes for 28 localities. The entire investigation, covering about 27,000 budgets, was conducted in 1944-46 with the active cooperation of the provincial governments.

### Education and Training

*Experience With Foremen Training in 115 Plants.* Chicago, Dartnell Corporation, [1949]. 83 pp., bibliography and exhibits; processed. (Report No. 583.) \$7.50 (in loose-leaf leatherette binder).

*Training Employees and Managers for Production and Teamwork.* By Earl G. Planty, W. S. McCord, C. A. Efferson. New York, Ronald Press Co., 1948. 278 pp., bibliography, illus. \$5.

*Vocational Guidance.* Geneva, International Labor Office, 1948. 52 pp. (Report IX(1), prepared for International Labor Conference, 32d Session, Geneva, 1949.) 35 cents. Distributed in United States by Washington Branch of ILO.

*Vocational Training of Adults in the United States.* Geneva, International Labor Office, 1948. 223 pp., bibliography, illus. (Vocational Training Monograph No. 3.) \$1.25. Distributed in United States by Washington Branch of ILO.

*Apprenticeship in Canada.* Ottawa, Department of Labor, 1949. 62 pp.

Part 1 contains brief outlines of apprenticeship systems in Great Britain, Australia, New Zealand, South Africa, and the United States; Part 2 deals with the Canadian Government's apprenticeship program; Part 3 summarizes briefly a number of private industrial plans.

*Development of Supervisors in German Industry: Introduction of Training Within Industry "J" Programs.* By John J. McCarthy. Berlin, Office of Military Government for Germany (U. S.), Manpower Division, 1949. 20 pp.; processed. (Visiting Expert Series, No. 5.)

Available for reference in some of the larger public libraries and in libraries of some of the larger colleges and universities of the United States.

*Forty-fifth Annual Report of Workers' Educational Association, London, for Year June 1, 1947, to May 31, 1948.* London, 1948. 94 pp.

## Housing

*Housing and Town and Country Planning, Bulletin No. 1.* Lake Success, N. Y., United Nations, Department of Social Affairs, November 1948. 74 pp., bibliography, illus. \$1.50.

*Reading List on Housing in the United States.* Washington, U. S. Housing and Home Finance Agency, Office of the Administrator, January 1949. 48 pp.; processed. Rev. ed.

*Symposium: Frontiers of Housing Research.* (In *Land Economics*, Madison, Wis., February 1949, pp. 51-132. \$1.50.)

*The Chicago Housing Authority Reports for 1948.* Chicago, Housing Authority, 1948. 40 pp. and inserts, charts, illus.; processed.

Covers operations in the fiscal year ending June 30, 1948. During this period the Chicago public housing program changed from a strictly Federal-aid basis to one in which State and city governments participated.

*Greater Seattle Housing Market Survey.* By Bayard O. Wheeler and Edith Dyer Rainboth. Seattle, University of Washington, College of Business Administration, Bureau of Business Research, 1948. 190 pp., maps, charts; processed. \$3.50.

In addition to summarizing housing preferences and plans of Seattle families needing housing, this volume provides comprehensive information on family incomes.

*Housing Directory, 1949: Housing and Redevelopment Agencies, Housing Research Organizations, Insurance Company Housing, Statistical Summary.* Chicago, National Association of Housing Officials, 1948. 139 pp. (Publication No. N260.) \$5.

*The Economics of Low-Rent Housing.* By L. C. Marsh. (In *Canadian Journal of Economics and Political Science*, Toronto, February 1949, pp. 14-33. \$1.)

Paper presented at annual meeting of Canadian Political Science Association, Vancouver, June 16, 1948. Analyzes the problem of low-rental urban housing in Canada as related to family income, varying requirements at different stages of family growth and income, existing supply of housing, etc.

## Industrial Accidents and Accident Prevention

*Accident Prevention.* (In *Public Health Reports*, Federal Security Agency, Public Health Service, Washington, March 25, 1949, pp. 355-389. 10 cents, Superintendent of Documents, Washington.)

Symposium of six articles dealing with problems involved in a program of accident prevention for the general population.

*Age and Experience of the Injured as Factors in Bituminous-Coal Mine Accident Prevention Work.* Washington, U. S. Department of the Interior, Bureau of Mines [1948]. 11 pp.; processed. (Health and Safety Series, No. 377.)

*Hazards of Black Blasting Powder in Underground Coal Mining.* By D. Harrington and R. G. Warneke. Washington, U. S. Department of the Interior, Bureau of Mines, 1949. 29 pp., diagrams; processed. (Information Circular No. 7492.)

*Hour of Occurrence of Industrial Injuries, California, August 1948.* San Francisco, Department of Industrial Relations, Division of Labor Statistics and Research, 1949. 6 pp., charts; processed.

*The International Industrial Safety Movement.* (In *International Labor Review*, Geneva, January 1949, pp. 1-33. 50 cents. Distributed in United States by Washington Branch of ILO.)

Origins and development of the movement, and work of the ILO and cognate groups in this field, are described.

## Industrial Hygiene

*Industrial Health Department Functions and Relationships.* By C. O. Sappington, M.D. Pittsburgh, Industrial Hygiene Foundation, 1948. 98 pp., illus. (Medical Series, Bull. No. VIII.)

Report of a 2-year (1945-47) survey, covering 278 plants, which measures progress in industrial health administrative practices since 1919 and offers suggestions for improving services.

*Dermatological Hazards in the Leather Industry—Wool Pulling; Belting; Felt and Hair.* By M. H. Samitz, M.D., and Primo Mori, M.D. (In *Industrial Medicine*, Chicago, March 1949, pp. 114-116. 75 cents.)

Fifth in a series of papers on dermatological hazards in commodity goods industries in Philadelphia.

*Environmental and Occupational Cancer.* By W. C. Hueper, M.D. Washington, Federal Security Agency, Public Health Service, 1949. 69 pp., bibliography. (Supplement 209, *Public Health Reports*, 1948.) 20 cents, Superintendent of Documents, Washington.

Comprehensive review of current knowledge on the subject, with emphasis on occupational cancer. Harmful substances and other industrial factors in the growth of cancer incidence in the United States are discussed, together with problems connected with their control.

*Maximum Allowable Concentrations of Atmospheric Impurities.* By Philip Drinker and Warren A. Cook. (In *Journal of Industrial Hygiene and Toxicology*, Baltimore, January 1949, pp. 51-54. \$1.50.)

Proposes specific ranges of maximum allowable concentrations or "zones of toxicity" for six groups of solvent vapors and gases, to be used as practical working limits for further refinement. The authors do not believe, however that available data warrant similar procedure as yet for toxic dusts and fumes.

*Beryllium: Health Hazards in the Extraction of Beryllium Oxide from Beryl and Beryllium Alloy Manufacture.* By Joseph Shilen, M.D., and others. (In *Industrial Medicine*, Chicago, March 1949, pp. 109-113. 75 cents.)



*American Standard Allowable Concentration of Methyl Chloride.* New York, American Standards Association, Inc., 1949. 4 pp., bibliography. (Z37.18-1949.) 35 cents.

*Mechanical-Filter and Chemical-Cartridge Respirators.* By Allen D. Brandt. (In *Safety Engineering*, New York, February 1949, pp. 16-18, 32, et seq., illus.)

Third of a series of 3 articles on respiratory protection. The others appeared in the December 1948 and January 1949 issues of *Safety Engineering*.

*Industrial Health Review, Volume 1, No. 1.* Ottawa, Department of National Health and Welfare, Industrial Health Division, January 1949. 24 pp., diagrams, illus.

## Industrial Relations

*Better Relations Through Better Understanding: Proceedings of 30th Silver Bay Conference on Human Relations in Industry, Silver Bay on Lake George, N. Y., July 21-24, 1948.* Edited by E. Clark Worman. New York, Association Press, 1948. 144 pp. \$1.50.

*The Consultant Role and Organizational Leadership: Improving Human Relations in Industry.* By Douglas McGregor and others. Boston, Massachusetts Institute of Technology, Department of Economics and Social Science, 1948. 54 pp. (Publications in Social Science, Series 2, No. 24. Reprinted from *Journal of Social Issues*, Vol. IV, No. 3, Summer 1948.)

Consists of four articles by social psychologists with experience in industrial relations. Titles are: The Staff Function in Human Relations; Leadership: A Conception and Some Implications; Some Problems of Industrial Training; Some Problems of Organizational Change.

*Industry-Wide Bargaining.* By Leo Wolman. Irvington-on-Hudson, Foundation for Economic Education, 1948. 63 pp. 50 cents.

*Multiple Management—A Plan for Human Relations in Industry.* By Charles P. McCormick. New York, Funk & Wagnalls Co., 1948. 52 pp. (Reading Course in Executive Technique, Section II, Book 5.) \$1.

*Telling Employees About Business Operations: The Company.* New York, Metropolitan Life Insurance Co., Policyholders Service Bureau, 1948. 56 pp., illus.

*The Right to Work: It Must be Supreme over Union Security.* By George Rose. (In *American Bar Association Journal*, Chicago, February 1949, pp. 110-112. 75 cents.)

*Thirteenth Annual Report of the National Labor Relations Board, for the Fiscal Year Ended June 19, 1948.* Washington, 1949. 195 pp., maps, charts. 50 cents, Superintendent of Documents, Washington.

*Government Seizures in Labor Disputes.* By Bertram F. Willcox and Elizabeth Storey Landis. (In *Cornell Law Quarterly*, Vol. XXXIV, No. 2, Ithaca, N. Y., Winter 1948, pp. 155-181.)

*Labor Relations in Western Germany.* By R. Taylor Cole. Berlin, Office of Military Government for Germany (U. S.), Manpower Division, 1948. 35 pp., bibliography; processed. (Visiting Expert Series, No. 2.)

Covers such subjects as trade-unions, employers' associations, works councils, and conciliation and arbitration agencies.

Available for reference in some of the larger public libraries and in libraries of some of the larger colleges and universities of the United States.

## Industry Reports

*Ministry of Fuel and Power Statistical Digest, 1946 and 1947.* London, 1948. 170 pp. (Cmd. 7548.) 3d. net, H. M. Stationery Office, London.

Labor data in the report are principally for coal mining and cover employment, hours worked, earnings, output per manshift, and fatal and nonfatal accidents.

*The National Coal Board, its Tasks, its Organization, and its Prospects.* By G. D. H. Cole. London, Fabian Society, 1948. 45 pp. (Research Series, No. 129.) 2s.

A guild Socialist, who still believes in eventual control by workers of the industry in which they work, discusses relationships between the National Coal Board of Great Britain, the mine managers, the union, and the coal miners; and makes proposals for revisions in the scheme of administration.

*The Nationalized Industries, [Great Britain]—A Statutory Analysis.* By D. N. Chester. London, Institute of Public Administration, 1948. 48 pp. 2s. 6d.

*The Rubber Industry—A Study in Competition and Monopoly.* By P. T. Bauer. Cambridge, Mass., Harvard University Press (for London School of Economics and Political Science), 1948. 404 pp. \$7.50.

The author reviews the production of natural rubber in Malaya and the Netherlands East Indies and devotes a chapter to the rise of the synthetic rubber industry in the United States. Part IV, Labor and Technique, deals with plantation labor in terms of labor force, wage rates, assisted migration, and repatriation of Indian labor.

## Job Evaluation

*Handbook of Job Evaluation for Clerical, Supervisory, and Administrative Jobs.* By Personnel Research Institute, Western Reserve University (Cleveland, Ohio). Cleveland, American Institute of Bolt, Nut and Rivet Manufacturers, 1948. 96 pp., bibliography, charts, forms.

*Job Analysis as Related to Visual Skills.* By N. Frank Stump. (In *Sight-Saving Review*, Vol. XVIII, No. 4, Philadelphia, Winter 1948, pp. 190-202, bibliography.) 50 cents.

*Determining Salesmen's Base Pay—A Role of Job Evaluation.* By Elmer W. Earl, Jr. New York, National Industrial Conference Board, Inc., 1948. 36 pp., bibliography. (Studies in Personnel Policy, No. 98.)

## Labor Management Relations Act

*Bibliography of the Labor-Management Relations Act.* Washington, U. S. National Labor Relations Board, Library, March 15, 1949. 7 pp.; processed. (NLRB-315, supplement.)

Supplement to bibliography dated December 1, 1948.

*Has Taft-Hartley Act Served Public Interest?* (In Commonwealth, Commonwealth Club of California, San Francisco, March 21, 1949, Part 2, pp. 421-484.)

Presents affirmative and negative reports on operations under the Labor Management Relations Act, and an analysis of the different points of view.

*Revision of the Taft-Hartley Act.* Princeton, N. J., Princeton University, Industrial Relations Section, March 1949. 4 pp. (Selected References, No. 26.) 15 cents.

## Labor Organizations and Activities

*Why I Am in the Labor Movement.* By 15 labor leaders. Washington, National Planning Association, 1949. 52 pp., illus. (Special Report No. 20.) \$1.

*Tomorrow Is Beautiful.* By Lucy Robins Lang. New York, Macmillan Co., 1948. 303 pp. \$3.50.

Autobiographical story of a woman who spent many years in the American labor movement. Dramatic rather than exhaustive, the book tells of the struggles through which workers in the movement have passed and the obstacles they have overcome.

*Procès-Verbal, Vingt-Septième Session du Congrès de la C. T. C. C., Hull, Quebec, 1948.* Quebec, Confédération des Travailleurs Catholiques du Canada, 1948. 368 pp.

Report of 27th congress of Confederation of Catholic Workers of Canada, held September 19-23, 1948. The confederation, which draws its members mainly from French-speaking Canadians of Quebec Province, reported that its membership had risen from 70,176 in May 1947 to 82,218 by May 31, 1948.

*Report of Proceedings of 63d Annual Convention of Trades and Labor Congress of Canada, Victoria, B. C., October 11-16, 1948.* [Ottawa], Trades and Labor Congress of Canada, [1949?]. 409 pp.

*The Reconstitution of the German Trade Union Movement.* By Matthew A. Kelly. (In *Political Science Quarterly*, New York, March 1949, pp. 24-49. \$1.50.)

Review of the development, structure, and problems of the trade-union movement in Germany, with statistics of membership in the different occupation zones in September 1948, and in the U. S. zone alone, December 1945 to September 1948.

*The Trade Union Press in the U. S. Occupied Area (Germany).* By Elmer A. Beck. Berlin, Office of Military Government for Germany (U. S.), Manpower Division, 1948. 18 pp.; processed. (Visiting Expert Series, No. 3.)

Available for reference in some of the larger public libraries and in libraries of some of the larger colleges and universities of the United States.

*Labor Governments at Work—British, Scandinavian, Australasian.* By Harry W. Laidler. New York, League for Industrial Democracy, Inc., 1948. 23 pp., bibliography. 20 cents.

*Makers of the Labor Movement.* By Margaret Cole. London, Longmans, Green & Co., 1948. 319 pp., bibliography, illus.

Biographies of 15 pioneers in the British labor movement, from Tom Paine to H. G. Wells.

*Trade Unionism in India.* By S. D. Punekar. Bombay, New Book Co., Ltd., 1948. 407 pp., bibliography.

This study, one of the few available on the Indian trade-union movement, discusses labor problems in India prior to the partition. Subjects treated include various aspects of industrial relations, international contacts of Indian labor, structure and administration of and legislation concerning trade-unions. Trade-union statistics are given in appendixes.

## Migration and Migrants

*The Facts About Refugees.* Geneva, International Refugee Organization, 1948. 24 pp., charts, illus.

States the problem and tells how IRO is meeting it through care, training, employment, and reestablishment. Some information is given on age distribution and occupational skills of the refugees.

*The Second Session of the Permanent Migration Committee, [International Labor Organization].* Geneva, International Labor Office, 1948. 172 pp. (Studies and Reports, New Series, No. 10.) \$1. Distributed in United States by Washington Branch of ILO.

## Occupations

*Occupational Outlook Handbook: Employment Information on Major Occupations for Use in Guidance.* Prepared by U. S. Bureau of Labor Statistics in cooperation with U. S. Veterans' Administration. Washington, U. S. Bureau of Labor Statistics, 1949. 453 pp., charts, illus. (Bull. No. 940.) \$1.75, Superintendent of Documents, Washington.

The handbook contains reports on 288 occupations ranging from farming to the professions. Information is given on duties, employment prospects, training and qualifications required, earnings, and other points.

*Your Job in Aviation: A Long-Range Forecast of Aviation Employment.* By Herman B. Byer. (In *Flying*, Chicago, January 1949, pp. 26-28, 61-63, chart, illus. 25 cents.)

Conclusions of a study by the Occupational Outlook Branch of the U. S. Bureau of Labor Statistics on job prospects in 13 fields in air transportation and aircraft manufacturing generally. A 70-group Air Force program is assumed. Allowance is made for the effect on the labor supply of Selective Service and other factors.

*Your Opportunity in Management.* New York, National Association of Manufacturers, 1948. 31 pp., bibliography, illus. (4th Series, "You and Industry.")



*Opportunities in the Medical Profession.* Pasadena, Calif., Western Personnel Institute, 1949. 12 pp., bibliography. (Science Series, No. 2.) \$1.

*1948 Facts About Nursing.* New York, American Nurses Association, [1949?]. 106 pp. 35 cents.

Contains data on the distribution of professional nurses in the United States; professional nurse education, counseling, and placement; employment practices; auxiliary nursing service; and other pertinent subjects.

*Nursing for the Future.* Prepared for National Nursing Council by Esther Lucile Brown. New York, Russell Sage Foundation, 1948. 198 pp. \$2.

The book deals with the need for revision in the organization of nursing care and nursing education in the United States. Discusses possible division of functions among practical nurses, graduate bedside nurses, and professional nurses, and the problems of education of each group.

### Old-Age Pensions

*An Analysis of Pension Fundamentals for the Employer.* By Edwin R. Erickson, Byron J. Harrill, Samuel A. Miller. Buffalo, N. Y., Edwin R. Erickson and Associates, 1948. 21 pp.

*Extra Pension Payments.* New York, Industrial Relations Counselors, Inc., 1948. 23 pp.; processed. (Industrial Relations Memo No. 103.)

Analysis of provisions (as of January 1948) made by 285 companies to meet the needs of their retired employees, by means of either supplements to pensions or special payments to retired employees not covered by pension plans.

*Impact of Taxes on Industrial Pension Plans.* By Rainard B. Robbins. New York, Industrial Relations Counselors, Inc., 1949. 79 pp. (Industrial Relations Monograph No. 14.) \$2.

### Productivity

*Greater Productivity Through Labor-Management Cooperation—Analysis of Company and Union Experience.* By Ernest Dale. New York, American Management Association, 1949. 197 pp., bibliography. (Research Report No. 14.) \$3 to members, \$5 to non-members.

*Technological Change and Productivity.* By W. D. Evans. (In *Social Science*, Menasha, Wis., January 1949, pp. 15-21.)

Emphasizes the vast long-term increase in use of mechanical energy as the main basis of rising productivity and income in the United States, and the relatively slight development of mechanical energy in other countries, as a main cause of differences in living standards and of international economic problems.

*Trends in Man-Hours Expended per Unit: Selected Types of Construction Machinery, 1939-47.* Washington, U. S. Bureau of Labor Statistics, 1949. 51 pp., charts; processed. Free.

*Productivity.* London, Trades Union Congress, 1948. 11 pp.

Reviews action taken on the productivity question by the British Trades Union Congress during 1948, and calls attention to specific problems and suggested solutions.

### Social Security (General)

*Recommendations for Social Security Legislation: Reports of Advisory Council on Social Security to Senate Committee on Finance.* Washington, 1949. 236 pp., charts. (Senate Doc. No. 208, 80th Cong., 2d Sess.) 40 cents, Superintendent of Documents, Washington.

Contains the four reports made by the Advisory Council on Social Security to the Senate Committee on Finance, 80th Congress, 2d Session, with more recent data in some cases. The four reports were previously issued as separate documents: (1) Old Age and Survivors Insurance (S. Doc. 149); (2) Permanent and Total Disability Insurance (S. Doc. 162); (3) Public Assistance (S. Doc. 204); and (4) Unemployment Insurance (S. Doc. 206). These separate reports were summarized in the Monthly Labor Review, the final report, on unemployment insurance, in the April 1949 issue (p. 422), with a footnote reference to the previous summaries.

*Social Security Yearbook, 1947.* Washington, Federal Security Agency, Social Security Administration, [1949]. 64 pp. (Annual Supplement to Social Security Bulletin.) 25 cents, Superintendent of Documents, Washington.

*A Survey of Accident and Health Coverage in the United States, as of December 31, 1947.* New York, Committee on Survey of Accident and Health Business, 1948. 15 pp., bibliography, chart.

Estimates the number of individuals covered by various types of voluntary accident and health protection plans.

*Annual Report of Railroad Retirement Board, for Fiscal Year Ended June 30, 1948.* Washington, 1949. 161 pp., charts. 35 cents, Superintendent of Documents, Washington.

Describes operations under the retirement and survivor benefit provisions of the Railroad Retirement Act, and operations under the Railroad Unemployment Insurance Act, including the first year of the sickness benefit program.

### Veterans' Affairs

*Annual Report of Administrator of Veterans' Affairs, for Fiscal Year Ending June 30, 1948.* Washington, U. S. Veterans' Administration, 1949. 267 pp., maps, charts. 60 cents, Superintendent of Documents, Washington.

*GI Joe—Three Years After: Employment of Male World War II Veterans, June 1948.* By Effie M. Wood. Chicago, Research Council for Economic Security, 1948. 7 pp., charts. (Publication No. 44.)

The conclusion reached is that "despite the extent, the complexity—and the heavy cost—of the programs to aid veterans, most of them have taken care of their own problems in shifting to civilian life."

*For the Home-Buying Veteran, His Rights and Wrongs.* Washington, U. S. Veterans' Administration, Office of the Housing Expediter, and Housing and Home Finance Agency—Federal Housing Administration, 1949. 23 pp., bibliography.

Guide to assistance furnished by the Government to veterans in buying or building homes, and to self-help and protection in any purchase of a house.

### Wages, Salaries, and Hours of Labor

*Higher Clerical Salaries on West Coast.* By Florence S. Geiger. (In Conference Board Management Record, National Industrial Conference Board, Inc., New York, February 1949, pp. 61-64.)

Although the title refers to the situation on the West Coast, the article gives data, by occupation, on salaries in 20 cities throughout the country in October 1948.

*Bureau of Labor Statistics Survey of Wages in West Coast Sawmilling, August 1948.* Washington, U. S. Bureau of Labor Statistics, 1949. 16 pp.; processed. Free.

*Wage Structure Series 2, No. 69: Soap and Glycerin, 1948.* Washington, U. S. Bureau of Labor Statistics, 1949. 13 pp.; processed. Free.

*Salary and Wage Data, Michigan Cities of More Than 10,000 Population: Hours of Work, Overtime Policies, and General Pay Increases Since April 1947.* Compiled by Municipal Personnel Service, Ann Arbor. Ann Arbor, Michigan Municipal League, 1948. 20 pp.; processed. (Information Bull. No. 54.) \$1.

*Assignment and Garnishment of Wages in Illinois.* By Murray Edelman. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1948. 20 pp. (Publications Series A, Vol. 2, No. 4.) 5 cents.

In addition to data on provisions and operation of the Illinois law on wage assignment and garnishment, the pamphlet contains tabulations of similar legislative provisions of other States.

*Wage-Price Spirals and Economic Stability, with Questions for Wage Negotiations.* Washington, Chamber of Commerce of the United States, Committee on Economic Policy, 1949. 24 pp., charts. 25 cents.

*First Report of the United Provinces Labor Enquiry Committee, 1946-48, Volume I, Part I: Wages, Dearness Allowances, and Bonus.* Allahabad, United Provinces, Superintendent, Printing and Stationery, 1948. 614 pp.

Report of an investigation in the United Provinces of Agra and Oudh, India, by a committee appointed by the Government in December 1946. Includes description of methods of inquiry, and detailed recommendations regarding wage levels and scales of allowances in various industries, and machinery for regulation and enforcement. Appendixes include copies of questionnaire used, and tables of average daily and monthly earnings of workers in certain industries.

### Miscellaneous

*Introduction to Economic Science.* By George Soule. New York, Viking Press, 1948. 154 pp., bibliography. \$2.50.

The author criticizes what he describes as certain "fallacies" of "economic fundamentalism" which views economics not as an experimental science in the modern sense of the word but rather as a set of principles and maxims "discovered once and for all in former centuries." His approach to economic science centers about income and the aims and policies he views as essential for the maintenance of high levels of income and employment.

*Labor in the American Economy.* By William Stephen Hopkins. New York, McGraw-Hill Book Co., Inc., 1948. 368 pp., bibliographies. \$3.50.

*Sources of Business Information.* By Edwin T. Coman, Jr. New York, Prentice-Hall, Inc., 1949. 406 pp. \$6 (\$4.50 to schools).

Thirty-three pages are devoted to sources classified under "The Human Factor—Industrial Relations;" other sections, particularly the one on management, contain references to material on or of interest to labor.

*We Over Forty—America's Human Scrap Pile.* By Conrad Miller Gilbert. Philadelphia, Westbrook Publishing Co., Inc., 1948. 128 pp. \$2.

*The Whole of Their Lives: Communism in America—A Personal History and Intimate Portrayal of its Leaders.* By Benjamin Gitlow. New York, Charles Scribner's Sons, 1948. 387 pp. \$3.50.

*Asian Labor, Volume I, No. 1.* New Delhi, Indian Labor Forum, October 1948. 166 pp. Rs. 2.8.0.

This initial issue of Asian Labor contains an editorial and 13 articles. Subjects of the articles include social objectives for Asian labor, a general survey of labor problems in Burma, trade-unionism in Burma and Ceylon, Malayan labor, labor conditions in Siam, and the workers' cooperative movement in China.

*The Czechoslovak Five-Year Plan.* (In International Labor Review, Geneva, January 1949, pp. 63-79. 50 cents. Distributed in United States by Washington Branch of ILO.)

Analysis of essential features of Czechoslovak five-year plan (1949-53), which includes planned increases in the labor force and in labor productivity. The article also contains a brief statement on the working of the two-year plan (1947-48).

*Postwar Reconstruction in Western Germany.* Edited by Adolf Schönke. (In Annals of American Academy of Political and Social Science, Vol. 260, Philadelphia, November 1948, pp. 1-174, bibliography. \$1 to members, \$2 to nonmembers, of Academy.)

Papers presented in this symposium include one on trade-unions and one on social insurance.



# Current Labor Statistics

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NOTE.—Earlier figures in many of the series appearing in the following tables are shown in the Handbook of Labor Statistics, 1947 Edition (BLS Bulletin 916). The Handbook also contains descriptions of the techniques used in compiling these data and information on the coverage of the different series. For convenience in referring to the historical statistics, the tables in this issue of the Monthly Labor Review are keyed to tables in the Handbook.

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<sup>1</sup> New or revised series; not included in Handbook.

<sup>2</sup> Not included in 1947 edition of Handbook.



## A: Employment and Pay Rolls

TABLE A-1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Sex

Labor force	Estimated number of persons 14 years of age and over <sup>1</sup> (in thousands)											
	1949			1948								
	Mar.	Feb.	Jan.	Dec.	Nov. <sup>2</sup>	Oct.	Sept. <sup>2</sup>	Aug.	July <sup>2</sup>	June	May	Apr.
Total, both sexes												
Total labor force <sup>3</sup>	62,305	61,896	61,546	62,828	63,138	63,166	63,578	64,511	65,135	64,740	61,660	61,760
Civilian labor force	60,814	60,388	60,078	61,375	61,724	61,775	62,212	63,186	63,842	63,479	60,422	60,524
Unemployment	3,167	3,221	2,664	1,941	1,831	1,642	1,899	1,941	2,227	2,184	1,761	2,193
Employment	57,647	57,167	57,414	59,434	59,893	60,134	60,312	61,245	61,615	61,295	58,660	58,330
Nonagricultural	50,254	50,174	50,651	52,059	51,932	51,506	51,590	52,801	52,452	51,899	50,800	50,883
Worked 35 hours or more	40,761	40,830	41,314	43,425	40,036	42,451	30,372	42,305	32,404	43,240	42,726	42,179
Worked 15-34 hours	5,964	5,737	5,533	5,303	8,469	5,747	17,149	4,811	12,147	4,910	4,886	4,902
Worked 1-14 hours <sup>4</sup>	1,944	1,876	1,899	1,844	1,877	1,726	1,596	1,447	1,304	1,403	1,637	1,776
With a job but not at work <sup>5</sup>	1,585	1,730	1,907	1,488	1,549	1,583	2,472	4,239	6,508	2,348	1,550	2,027
Agricultural	7,393	6,993	6,763	7,375	7,961	8,627	8,723	8,444	9,163	9,396	7,861	7,448
Worked 35 hours or more	4,973	4,591	4,299	5,235	5,485	6,811	6,705	6,122	7,011	7,390	5,936	5,670
Worked 15-34 hours	1,833	1,776	1,725	1,680	1,997	1,455	1,636	1,669	1,767	1,669	1,513	1,336
Worked 1-14 hours <sup>4</sup>	357	367	392	265	279	223	218	249	203	182	201	187
With a job but not at work <sup>5</sup>	231	260	345	196	201	140	165	405	184	154	211	255
Males												
Total labor force <sup>3</sup>	45,000	44,721	44,614	45,012	45,182	45,229	45,453	46,525	46,715	46,039	44,619	44,589
Civilian labor force	43,525	43,229	43,161	43,573	43,782	43,851	44,101	45,215	45,437	44,794	43,288	43,369
Unemployment	2,433	2,417	2,011	1,411	1,231	1,088	1,251	1,326	1,448	1,375	1,239	1,567
Employment	41,092	40,812	41,150	42,162	42,551	42,763	42,850	43,889	43,989	43,420	42,058	41,801
Nonagricultural	34,622	34,689	35,193	35,991	36,079	36,016	35,960	36,836	36,633	36,162	35,386	35,352
Worked 35 hours or more	29,425	29,425	29,888	31,469	29,442	31,081	23,115	31,226	24,344	31,700	31,006	30,675
Worked 15-34 hours	3,286	3,199	3,075	2,678	4,719	3,092	10,577	2,599	7,766	2,535	2,565	2,525
Worked 1-14 hours <sup>4</sup>	802	825	879	763	808	711	646	563	597	597	709	787
With a job but not at work <sup>5</sup>	1,109	1,239	1,352	1,082	1,110	1,132	1,622	2,448	3,962	1,332	1,105	1,465
Agricultural	6,470	6,123	5,957	6,171	6,472	6,747	6,890	7,053	7,356	7,257	6,673	6,450
Worked 35 hours or more	4,738	4,344	4,102	4,813	5,007	5,772	5,858	5,663	6,152	6,310	5,525	5,321
Worked 15-34 hours	1,294	1,263	1,261	1,046	1,120	738	743	882	903	707	862	816
Worked 1-14 hours <sup>4</sup>	223	270	275	143	163	124	138	179	145	111	136	124
With a job but not at work <sup>5</sup>	216	246	318	170	182	114	151	330	157	129	150	189
Females												
Total labor force <sup>3</sup>	17,305	17,175	16,932	17,816	17,956	17,937	18,125	17,986	18,420	18,701	17,141	17,171
Civilian labor force	17,289	17,159	16,917	17,802	17,942	17,924	18,111	17,971	18,405	18,685	17,124	17,155
Unemployment	734	804	633	530	600	554	648	615	779	809	522	626
Employment	16,555	16,355	16,284	17,272	17,342	17,371	17,462	17,356	17,626	17,876	16,602	16,529
Nonagricultural	15,632	15,485	15,458	16,068	15,853	15,490	15,630	15,965	15,819	15,737	15,414	15,531
Worked 35 hours or more	11,336	11,405	11,426	11,956	10,594	11,370	7,257	11,079	8,060	11,540	11,720	11,604
Worked 15-34 hours	2,678	2,538	2,458	2,625	3,750	2,655	6,572	2,212	4,381	2,375	2,321	2,377
Worked 1-14 hours <sup>4</sup>	1,142	1,051	1,020	1,081	1,069	1,015	950	884	831	806	928	989
With a job but not at work <sup>5</sup>	476	491	555	406	439	451	850	1,791	2,546	1,016	445	562
Agricultural	923	870	806	1,204	1,489	1,880	1,833	1,391	1,807	2,139	1,188	998
Worked 35 hours or more	235	247	197	422	478	1,039	847	459	859	1,080	411	349
Worked 15-34 hours	539	513	464	634	877	717	893	787	864	962	651	520
Worked 1-14 hours <sup>4</sup>	134	97	117	122	116	99	80	70	58	71	65	63
With a job but not at work <sup>5</sup>	15	14	27	26	19	26	14	75	27	25	61	66

<sup>1</sup> Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions. Because of rounding, the individual figures do not necessarily add to group totals.

<sup>2</sup> Census survey week contains legal holiday.

<sup>3</sup> Total labor force consists of the civilian labor force and the armed forces.

<sup>4</sup> Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

<sup>5</sup> Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Source: U. S. Department of Commerce, Bureau of the Census.

NOTE.—Explanatory notes outlining briefly the concepts, methodology, size of the reporting sample, and sources used in preparing data presented in tables A-2 through A-15 are contained in the Bureau's monthly mimeographed release, "Employment and Pay Rolls—Detailed Report," which is available upon request.

TABLE A-2: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments, by Industry Division<sup>1</sup>

(In thousands)

Industry division	1949				1948										Annual average	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	1939	
Total estimated employment.....	43,871	43,997	44,340	46,088	45,739	45,877	45,889	45,478	45,098	45,009	44,616	44,299	44,600	42,042	30,287	
Manufacturing.....	15,597	15,756	15,890	16,283	16,461	16,597	16,697	16,441	16,172	16,115	15,892	15,950	16,269	17,381	10,078	
Mining.....	914	922	924	939	938	941	948	952	922	950	935	917	924	917	845	
Anthracite.....	80	81	82	82	82	82	82	83	81	82	81	82	82	83	80	
Bituminous coal.....	409	417	419	423	421	422	426	426	395	426	423	309	419	437	388	
Metal.....	105	104	100	101	99	103	100	99	103	104	102	103	102	126	103	
Quarrying and nonmetallic.....	87	85	86	93	95	96	98	98	97	97	95	93	90	90	76	
Crude petroleum and natural gas production <sup>1</sup> .....	233	235	237	240	241	238	242	246	246	241	234	230	231	181	189	
Contract construction <sup>1</sup> .....	1,838	1,824	1,906	2,079	2,162	2,206	2,239	2,253	2,219	2,173	2,052	1,933	1,805	1,567	1,150	
Transportation and public utilities.....	3,920	3,957	3,977	4,066	4,066	4,091	4,092	4,139	4,136	4,105	4,042	3,974	4,032	3,619	2,912	
Transportation.....	2,671	2,704	2,728	2,809	2,809	2,836	2,832	2,869	2,873	2,860	2,809	2,744	2,808	2,746	2,080	
Communication.....	732	736	734	740	740	740	741	747	745	734	731	731	728	488	391	
Other public utilities.....	517	517	515	517	517	515	519	523	518	511	502	499	496	385	441	
Trade.....	9,531	9,513	9,625	10,381	10,034	9,889	9,733	9,660	9,646	9,670	9,617	9,576	9,598	7,322	6,705	
Finance.....	1,718	1,706	1,711	1,722	1,720	1,723	1,732	1,761	1,754	1,726	1,716	1,704	1,697	1,401	1,382	
Service.....	4,591	4,560	4,546	4,624	4,644	4,641	4,647	4,622	4,645	4,663	4,738	4,768	4,729	3,786	3,228	
Government.....	5,762	5,759	5,761	5,994	5,714	5,789	5,801	5,650	5,604	5,607	5,624	5,577	5,546	6,049	3,987	
Federal.....	1,877	1,877	1,876	2,156	1,856	1,875	1,873	1,855	1,837	1,804	1,788	1,771	1,758	2,875	898	
State and local.....	3,885	3,882	3,885	3,838	3,858	3,914	3,928	3,795	3,767	3,803	3,836	3,806	3,788	3,174	2,089	

<sup>1</sup> Data are based upon reports submitted by cooperating establishments and therefore differ from employment information obtained by household interviews, such as the Monthly Report on the Labor Force. The Bureau of Labor Statistics estimates of employment in nonagricultural establishments differ from those on the Monthly Report on the Labor Force (table A-1) in several important respects. The Bureau of Labor Statistics data cover all full- and part-time wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month, in Federal establishments during the pay period ending just before the first of the month, and in State and local government during the pay period ending on or just before the last of the month. Persons who worked in more than one establishment during the reporting period would be counted more than once. Proprietors, self-employed persons, domestic servants, unpaid family workers, and personnel of the armed

forces are excluded. These estimates have been adjusted to levels indicated by Federal Security Agency data through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Data for the three most recent months are subject to revision.

<sup>2</sup> Includes well drilling and rig building.

<sup>3</sup> These figures cover all employees of private firms whose major activity is construction. They are not directly comparable with the construction employment estimates presented in table 2, p. 1111, of the June 1947 issue of this publication, which include self-employed persons, working proprietors, and force-account workers and other employees of nonconstruction firms or public bodies who engage in construction work, as well as all employees of construction firms. An article presenting this other construction employment series appeared in the August 1947 issue of this publication, and will appear quarterly thereafter.

TABLE A-3: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by Major Industry Group<sup>1</sup>

(In thousands)

Major industry group	1949				1948									Annual average	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	1939
All manufacturing.....	15,597	15,756	15,890	16,283	16,461	16,597	16,697	16,441	16,172	16,115	15,892	15,950	16,269	17,381	10,078
Durable goods.....	7,782	7,891	8,005	8,222	8,303	8,318	8,294	8,188	8,165	8,122	8,114	8,164	8,258	10,297	4,357
Nondurable goods.....	7,815	7,865	7,885	8,061	8,158	8,279	8,403	8,253	8,007	7,993	7,778	7,786	8,011	7,084	5,720
Iron and steel and their products.....	1,835	1,867	1,892	1,935	1,952	1,955	1,945	1,928	1,897	1,904	1,894	1,897	1,929	2,034	1,171
Electrical machinery.....	680	700	715	730	735	731	725	716	714	726	727	742	756	914	355
Machinery, except electrical.....	1,489	1,515	1,536	1,560	1,563	1,569	1,569	1,564	1,571	1,577	1,568	1,562	1,587	1,585	690
Transportation equipment, except automobiles.....	574	578	580	588	588	583	572	542	561	562	565	589	589	2,951	193
Automobiles.....	951	949	972	980	977	982	985	953	984	918	964	979	985	845	466
Nonferrous metals and their products.....	437	448	455	468	474	473	469	465	457	469	467	475	482	525	283
Lumber and timber basic products.....	787	790	800	870	908	918	930	930	912	881	851	833	827	589	465
Furniture and finished lumber products.....	519	526	529	552	562	562	558	552	542	550	548	561	576	429	385
Stone, clay, and glass products.....	510	518	526	539	544	545	541	538	527	535	530	526	527	422	349
Textile-mill products and other fiber manufactures.....	1,271	1,313	1,323	1,358	1,368	1,371	1,384	1,397	1,364	1,418	1,416	1,425	1,435	1,330	1,235
Apparel and other finished textile products.....	1,364	1,358	1,310	1,327	1,340	1,353	1,348	1,329	1,235	1,263	1,247	1,268	1,334	1,080	894
Leather and leather products.....	412	412	410	409	408	421	425	429	421	419	404	418	442	378	383
Food.....	1,696	1,687	1,723	1,792	1,840	1,931	2,069	1,957	1,903	1,786	1,610	1,562	1,655	1,418	1,192
Tobacco manufactures.....	95	96	96	100	103	103	101	99	96	98	97	99	100	103	105
Paper and allied products.....	471	476	481	491	493	491	487	479	476	477	476	476	480	389	320
Printing, publishing, and allied industries.....	724	726	729	738	734	735	725	720	716	719	718	718	722	549	561
Chemicals and allied products.....	774	778	784	788	790	789	785	775	751	762	759	767	773	873	421
Products of petroleum and coal.....	237	237	238	240	242	240	245	246	247	245	242	238	238	170	147
Rubber products.....	232	235	240	246	249	248	246	245	240	243	243	246	253	231	150
Miscellaneous industries.....	539	547	551	572	591	597	588	577	558	563	566	569	579	563	311

<sup>1</sup> Data include all full- and part-time production and nonproduction workers in manufacturing industries who worked or received pay during the pay period ending nearest the 15th of the month. These estimates have been adjusted to levels indicated by Federal Security Agency data through 1946

and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Data for the three most recent months are subject to revision.



TABLE A-4: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments for Selected States<sup>1</sup>

[In thousands]

Region and State	1949		1948											Annual average 1943
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	
New England:														
Maine.....	248	251	262	263	269	275	280	276	270	259	253	261	261	301
Vermont.....	91	92	95	94	94	95	96	95	96	95	94	94	94	91
Massachusetts.....	1,662	1,680	1,755	*1,728	*1,733	1,735	1,726	1,714	1,731	1,720	*1,712	*1,720	*1,715	1,734
Rhode Island.....	273	276	288	*289	*289	*290	*286	*287	*289	*288	*290	*292	*290	313
Connecticut.....	739	751	778	775	*775	771	761	762	*765	*767	773	*774	770	799
Middle Atlantic:														
New York.....	5,454	5,481	5,690	5,649	5,661	5,653	5,618	5,559	5,570	5,521	5,508	5,538	5,508	5,268
New Jersey.....	1,523	1,538	1,586	1,585	1,594	1,604	1,599	1,589	1,592	1,576	1,568	1,563	1,553	1,732
Pennsylvania.....	3,549	3,581	3,701	3,671	3,668	3,660	3,627	3,586	3,609	3,579	3,522	3,584	3,546	3,480
East North Central:														
Indiana.....	1,163	1,176	1,225	1,215	1,220	1,237	1,203	1,205	1,207	1,197	1,183	1,194	1,180	1,191
Illinois.....	3,112	3,157	3,256	3,230	3,228	3,218	3,195	3,185	3,174	3,126	3,110	3,144	3,151	2,957
Wisconsin.....	961	971	1,006	1,000	1,003	1,018	1,007	1,016	993	977	973	974	972	885
West North Central:														
Minnesota.....	767	775	809	813	813	825	823	813	803	782	767	762	764	666
Missouri.....	1,099	1,112	1,158	1,144	1,153	1,144	1,141	1,140	1,139	1,126	1,120	1,120	1,114	1,081
Kansas.....	429	434	454	447	447	449	445	442	442	432	420	415	411	464
South Atlantic:														
Maryland.....	690	699	723	723	719	720	714	707	707	698	686	685	676	759
Georgia.....	727	730	753	751	753	749	747	736	742	739	738	740	731	735
East South Central:														
Tennessee.....	715	722	751	*749	*754	*757	*756	*745	*744	*741	733	734	721	669
West South Central:														
Arkansas.....	289	295	311	306	308	306	301	299	298	294	288	282	276	277
Oklahoma.....	459	462	486	472	472	475	469	467	470	459	452	436	432	436
Texas.....	1,747	1,752	1,808	1,777	1,768	1,758	1,746	1,740	1,725	1,702	1,693	1,670	1,664	1,644
Mountain:														
Montana.....	135	137	142	142	143	143	142	141	139	136	136	133	133	117
Idaho.....	118	123	131	132	133	132	121	121	118	116	115	115	115	101
Wyoming.....	73	74	78	79	83	87	85	85	82	75	72	70	69	64
New Mexico.....	127	127	130	129	129	133	132	131	130	128	124	122	120	95
Arizona.....	154	155	159	156	156	154	153	155	156	156	156	155	155	142
Utah.....	169	168	184	186	191	195	189	189	184	180	171	173	171	*187
Nevada.....	46	46	48	48	48	49	50	50	49	48	48	47	47	55
Pacific:														
Washington.....	641	646	688	692	704	707	693	687	671	648	665	654	642	726
California.....	2,970	2,992	3,117	*3,086	*3,123	*3,162	*3,147	3,109	*3,078	3,046	3,024	3,029	3,024	3,066

<sup>1</sup> Revised data in all except the first three columns are identified by an asterisk for the first month's publication of such data. Comparable series, January 1943 to date, are available upon request to U. S. Department of Labor or cooperating State agency. See table A-5 for addresses of cooperating State agencies.

<sup>2</sup> Does not include contract construction.

<sup>3</sup> Average for 1943 may not be strictly comparable with current data.

TABLE A-5: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State<sup>1</sup>

(In thousands)

Region and State	1949		1948											Annual average 1943 <sup>1</sup>
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	
New England:														
Maine <sup>2</sup>	106.3	107.8	109.3	111.2	113.7	117.9	120.2	116.5	115.2	108.2	106.7	115.2	116.5	144.4
New Hampshire	77.9	77.7	79.2	80.4	82.1	82.1	83.6	82.1	82.7	81.6	82.6	84.4	85.6	77.0
Vermont <sup>2</sup>	34.5	35.4	36.2	36.6	36.7	37.3	37.9	37.1	37.8	37.7	38.0	38.7	38.8	41.3
Massachusetts	690.8	696.7	715.5	722.8	727.9	731.3	725.6	710.0	726.1	723.4	729.7	745.7	*746.0	835.6
Rhode Island	134.3	136.1	139.5	142.1	142.8	144.7	144.1	144.8	146.5	147.0	149.9	153.6	154.5	169.4
Connecticut <sup>2</sup>	379.0	387.6	395.1	396.5	397.0	397.1	392.1	393.3	396.5	401.1	406.4	*417.7	418.8	504.2
Middle Atlantic:														
New York <sup>2</sup>	1,809.0	1,807.8	1,853.1	1,884.7	1,896.9	1,900.0	1,878.4	1,818.4	1,842.7	1,829.5	1,849.9	1,904.0	1,912.1	2,115.7
New Jersey	702.4	707.2	724.7	740.9	747.8	750.4	743.9	732.8	741.8	740.7	746.0	753.7	757.8	951.1
Pennsylvania	1,446.9	1,461.8	1,498.9	1,504.0	1,508.1	1,508.1	1,498.0	1,481.2	1,495.4	1,489.4	1,497.5	1,514.3	1,513.1	1,579.3
East North Central:														
Ohio	1,180.5	1,190.6	1,210.4	1,224.6	1,226.5	1,231.8	1,224.5	1,216.4	1,228.2	1,221.3	1,230.7	1,244.0	1,243.9	1,363.3
Indiana	528.0	533.5	542.9	545.8	551.6	559.4	542.7	544.1	545.5	541.9	540.0	552.8	553.4	633.1
Illinois	1,191.7	1,211.5	1,234.5	1,242.7	1,243.3	1,243.8	1,231.0	1,227.4	1,228.7	1,203.5	1,198.0	1,253.5	1,267.0	1,263.7
Michigan	947.4	972.9	988.5	993.4	1,002.0	1,004.9	987.8	996.8	992.7	998.5	1,002.7	1,010.9	970.7	1,181.8
Wisconsin <sup>2</sup>	411.4	415.5	426.5	430.7	431.8	445.9	434.5	447.9	429.7	420.0	426.3	432.5	434.2	442.8
West North Central:														
Minnesota <sup>2</sup>	189.7	191.7	197.5	200.8	201.9	210.2	210.0	206.6	203.3	190.9	188.7	198.0	199.0	215.1
Iowa <sup>2</sup>	152.3	153.9	155.9	153.8	153.8	153.9	153.0	152.1	149.8	135.1	133.8	153.7	154.7	161.7
Missouri <sup>2</sup>	339.3	342.0	345.5	347.2	349.8	347.3	349.1	345.7	343.9	339.3	339.9	346.6	349.2	412.9
North Dakota	6.4	6.6	6.6	6.9	7.0	6.8	6.9	7.0	7.1	6.7	6.4	6.3	6.4	5.6
South Dakota	11.6	11.7	12.0	12.2	11.9	11.6	11.7	11.8	11.9	11.3	11.3	11.0	11.1	10.3
Nebraska	41.6	42.4	42.9	44.1	43.6	42.4	43.1	43.6	43.0	36.1	34.9	42.4	43.0	60.8
Kansas <sup>2</sup>	86.0	86.6	87.8	87.8	88.3	87.5	87.6	87.6	87.6	80.7	75.4	79.8	79.8	144.2
South Atlantic:														
Delaware	44.8	44.5	44.8	45.2	46.3	48.9	48.2	46.6	46.6	45.8	46.6	46.5	45.9	55.2
Maryland	218.0	219.1	227.7	233.0	235.3	242.4	239.2	232.8	229.4	228.5	228.2	228.9	228.5	348.8
District of Columbia	16.8	16.7	17.1	17.0	16.9	17.0	16.7	17.2	17.1	17.2	17.4	17.1	16.8	15.6
Virginia	205.9	206.3	211.3	215.5	218.4	217.7	214.5	211.5	211.1	210.8	212.8	213.7	213.5	231.9
West Virginia	128.4	129.6	132.3	132.7	134.1	132.9	133.7	133.3	133.9	132.4	131.9	130.9	130.3	132.2
North Carolina	358.5	360.1	367.2	369.3	370.8	375.4	378.9	362.9	381.7	381.4	382.6	385.8	380.4	399.9
South Carolina	190.9	188.8	193.0	193.6	193.8	194.3	196.9	195.8	200.5	199.3	199.3	200.5	196.9	191.8
Georgia <sup>2</sup>	265.7	266.6	271.7	277.6	279.9	279.4	280.1	273.6	276.3	275.0	276.5	281.1	280.1	302.9
Florida <sup>2</sup>	99.5	99.3	99.7	97.3	90.7	89.9	88.2	88.0	90.0	93.2	96.5	99.4	98.9	136.0
East South Central:														
Kentucky	122.4	122.7	126.8	128.6	129.2	128.1	127.4	126.8	127.0	125.9	128.2	129.5	129.4	131.7
Tennessee <sup>2</sup>	237.4	237.0	246.6	*252.1	*258.0	*258.1	*260.4	*256.9	*256.9	*258.5	*257.9	*260.0	*256.3	255.9
Alabama <sup>2</sup>	220.8	223.3	224.8	228.7	229.1	227.1	228.3	228.9	227.4	227.2	226.5	230.9	230.2	258.5
Mississippi	81.3	83.5	86.6	87.0	87.2	87.4	90.6	91.3	89.5	88.1	88.6	90.0	90.5	95.1
West South Central:														
Arkansas <sup>2</sup>	70.9	74.7	77.1	79.0	80.2	79.5	79.6	78.8	79.0	77.4	74.9	73.0	69.8	76.7
Louisiana	147.4	148.6	150.9	152.6	153.6	155.7	155.6	150.0	148.7	147.9	148.3	145.9	142.6	166.1
Oklahoma <sup>2</sup>	63.5	64.3	66.7	67.4	67.9	67.2	66.9	66.7	68.9	65.2	65.5	62.6	62.6	90.7
Texas	337.1	343.1	353.3	358.0	352.8	351.4	353.6	352.9	354.8	341.7	338.7	337.0	340.1	424.8
Mountain:														
Montana	16.9	16.9	18.1	18.6	18.8	18.1	18.0	18.1	17.7	17.1	17.1	17.2	17.3	15.7
Idaho <sup>2</sup>	17.5	19.0	20.9	23.4	26.0	24.8	20.1	20.6	18.8	18.1	16.7	16.9	17.6	15.5
Wyoming <sup>2</sup>	6.0	6.1	6.4	7.1	7.3	6.7	6.9	6.9	6.8	6.1	5.9	5.6	5.7	5.1
Colorado	52.7	53.5	55.9	59.2	60.2	58.3	56.9	56.5	56.3	53.3	54.0	55.5	55.1	67.5
New Mexico <sup>2</sup>	9.5	9.5	9.9	10.1	10.1	9.8	9.8	9.8	9.5	9.4	9.0	8.2	8.2	7.9
Arizona <sup>2</sup>	14.8	14.6	15.2	15.1	14.8	13.8	15.1	15.8	15.4	15.2	14.9	14.7	14.6	19.4
Utah <sup>2</sup>	25.5	25.5	27.7	30.9	31.6	32.8	29.1	29.4	26.7	25.2	23.3	24.4	24.1	33.5
Nevada <sup>2</sup>	3.1	3.2	3.3	3.4	3.4	3.5	3.6	3.4	3.4	3.3	3.3	*3.4	*3.4	7.9
Pacific:														
Washington <sup>2</sup>	163.4	163.5	174.5	184.8	192.9	192.8	183.7	180.6	164.2	150.5	174.5	171.3	167.2	285.6
Oregon	102.1	102.9	109.9	113.3	118.8	121.5	121.2	117.3	112.8	110.7	110.2	110.2	109.2	192.1
California	693.7	703.6	727.1	*738.3	*769.2	*802.9	*772.8	*742.1	*714.1	*696.5	695.8	700.4	703.5	1,165.5

<sup>1</sup> Revised data in all except the first three columns are identified by an asterisk for the first month's publication of such data. Comparable series, January 1943 to date, are available upon request to U. S. Department of Labor or cooperating State Agency listed below.

<sup>2</sup> Average for 1943 may not be strictly comparable with current data for those States now based on Standard Industrial Classification.

<sup>3</sup> Series based on Standard Industrial Classification.

#### Cooperating State Agencies:

Alabama—Department of Industrial Relations, Montgomery 5.  
 Arizona—Unemployment Compensation Division, Employment Security Commission, Phoenix.  
 Arkansas—Employment Security Division, Department of Labor, Little Rock.  
 California—Division of Labor Statistics and Research, Department of Industrial Relations, San Francisco 3.  
 Connecticut—Employment Security Division, Department of Labor and Factory Inspection, Hartford 15.  
 Delaware—Federal Reserve Bank of Philadelphia, Philadelphia 1, Pa.  
 Florida—Unemployment Compensation Division, Industrial Commission, Tallahassee.  
 Georgia—Employment Security Agency, Department of Labor, Atlanta 3.  
 Idaho—Employment Security Agency, Industrial Accident Board, Boise.  
 Illinois—Department of Labor, Chicago 1.  
 Indiana—Employment Security Division, Indianapolis 4.  
 Iowa—Employment Security Commission, Des Moines 9.  
 Kansas—Employment Security Division, State Labor Department, Topeka.  
 Kentucky—Department of Economic Security, Frankfort.  
 Louisiana—Division of Employment Security, Department of Labor, Baton Rouge 4.  
 Maine—Unemployment Compensation Commission, Augusta.  
 Maryland—Department of Employment Security, Baltimore 2.

Massachusetts—Division of Statistics, Department of Labor and Industries, Boston 10.

Michigan—Department of Labor and Industry, Lansing 13.

Minnesota—Division of Employment and Security, Department of Social Security, St. Paul 1.

Missouri—Division of Employment Security, Department of Labor and Industrial Relations, Jefferson City.

Montana—Unemployment Compensation Commission, Helena.

Nebraska—Division of Employment Security, Department of Labor, Lincoln 1.

Nevada—Employment Security Department, Carson City.

New Hampshire—Unemployment Compensation Division, Bureau of Labor, Concord.

New Jersey—Department of Labor and Industry, Trenton 8.

New Mexico—Employment Security Commission, Albuquerque.

New York—Division of Placement and Unemployment Insurance, Department of Labor, New York 17.

North Carolina—Department of Labor, Raleigh.

North Dakota—Unemployment Compensation Division, Bismarck.

Oklahoma—Employment Security Commission, Oklahoma City 2.

Pennsylvania—Federal Reserve Bank of Philadelphia, Philadelphia 1 (manufacturing); Bureau of Research and Information, Department of Labor and Industry, Harrisburg (nonmanufacturing).

Rhode Island—Division of Census and Information, Department of Labor, Providence 2.

Tennessee—Department of Employment Security, Nashville 3.

Texas—Bureau of Business Research, University of Texas, Austin 12.

Utah—Department of Employment Security, Industrial Commission Salt Lake City 13.

Vermont—Unemployment Compensation Commission, Montpelier.

Virginia—Division of Research and Statistics, Department of Labor and Industry, Richmond 21.

Washington—Employment Security Department, Olympia.

Wisconsin—Statistical Department, Industrial Commission, Madison 3.

Wyoming—Employment Security Commission, Casper.



TABLE A-6: Estimated Number of Production Workers in Manufacturing Industries<sup>1</sup>

[In thousands]

Industry group and industry	1949			1948										Annual average	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	1939
All manufacturing	12,393	12,552	12,670	13,059	13,238	13,375	13,488	13,245	12,987	12,959	12,738	12,791	13,131	14,560	8,192
Durable goods	6,314	6,416	6,522	6,736	6,810	6,822	6,803	6,709	6,681	6,662	6,642	6,683	6,791	8,727	3,611
Nondurable goods	6,079	6,136	6,148	6,323	6,428	6,553	6,685	6,536	6,306	6,297	6,096	6,108	6,340	5,834	4,581
<i>Durable goods</i>															
Iron and steel and their products <sup>2</sup>	1,545	1,574	1,597	1,638	1,654	1,657	1,648	1,631	1,601	1,610	1,600	1,603	1,634	1,761	991
Blast furnaces, steel works, and rolling mills		546.2	543.0	543.0	538.1	535.0	535.1	535.8	526.5	523.0	517.7	511.8	516.1	516.7	388.4
Gray-iron and semisteel castings		105.8	109.0	113.1	115.5	115.8	114.9	112.3	110.4	114.6	112.9	116.6	119.9	88.4	62.2
Malleable-iron castings		34.8	36.6	39.0	38.6	38.5	38.6	37.4	36.1	37.9	37.3	37.2	37.9	28.8	19.2
Steel castings		72.3	73.8	74.9	75.1	75.0	74.7	73.1	71.8	73.3	72.1	72.3	73.0	90.1	32.1
Cast-iron pipe and fittings		28.6	29.8	30.0	29.9	29.3	29.4	29.5	28.9	28.9	28.4	27.6	28.3	18.0	17.6
Tin cans and other tinware		43.1	44.8	46.4	47.0	48.7	50.1	49.1	47.3	44.7	42.8	42.1	44.5	32.4	31.8
Wire drawn from purchased rods		27.8	28.5	28.7	28.7	29.1	28.6	28.4	28.0	28.7	29.4	30.1	30.6	36.0	22.0
Wirework		41.1	41.6	42.2	42.1	42.1	42.8	42.4	41.8	40.2	41.1	41.9	43.4	32.8	30.4
Cutlery and edge tools		22.7	23.2	24.3	25.0	24.3	23.9	22.5	21.8	22.1	23.1	23.7	24.0	21.8	15.4
Tools (except edge tools, machine tools, files, and saws)		23.3	24.0	24.4	24.5	24.6	24.7	24.6	24.6	25.1	25.2	25.5	25.7	27.8	15.3
Hardware		50.9	52.0	54.2	54.1	53.8	53.5	53.0	52.2	52.7	54.6	55.9	57.2	45.3	35.7
Plumbers' supplies		39.6	41.4	42.4	42.6	42.4	41.3	40.4	38.8	40.3	39.3	39.4	40.2	25.0	26.2
Stoves, oil burners, and heating equipment, not elsewhere classified		61.8	64.0	76.4	87.6	93.3	92.0	88.5	81.8	83.0	83.7	81.9	87.5	60.4	49.2
Steam and hot-water heating apparatus and steam fittings		60.0	63.3	65.3	66.1	66.6	65.3	63.9	60.0	63.8	64.0	63.0	66.0	64.4	32.3
Stamped and enameled ware and galvanizing		105.7	106.4	113.5	117.6	116.5	114.3	114.9	116.0	116.9	116.8	118.1	120.1	97.0	59.2
Fabricated structural and ornamental metalwork		64.1	65.0	65.6	65.8	66.3	65.0	64.2	62.5	62.8	63.2	63.8	63.9	71.0	35.6
Metal doors, sash, frames, molding, and trim		9.9	10.3	11.0	11.3	11.2	11.0	10.9	10.4	10.4	10.2	10.1	10.5	12.8	7.7
Bolts, nuts, washers, and rivets		28.2	28.5	28.7	28.4	28.3	28.1	27.9	28.1	28.5	28.6	28.9	28.9	31.6	15.2
Forgings, iron and steel		37.6	38.1	38.4	38.2	37.4	36.9	35.3	35.1	34.9	35.1	36.7	37.5	43.6	16.4
Wrought pipe, welded and heavy-riveted		19.7	19.6	19.5	19.7	19.9	19.8	19.7	19.8	20.1	18.8	18.8	19.2	28.4	8.9
Screw-machine products and wood screws		33.8	35.1	35.7	35.9	35.5	35.0	35.1	35.2	35.9	36.4	36.8	36.8	53.8	18.0
Steel barrels, kegs, and drums		7.3	7.6	7.8	7.8	7.9	8.0	8.1	7.9	7.9	7.6	7.7	7.9	8.5	6.5
Firearms		22.4	22.6	22.4	22.4	22.1	21.7	21.4	21.5	21.4	21.2	21.0	20.8	71.7	5.3
Electrical machinery <sup>3</sup>	505	521	536	552	557	553	548	538	535	547	548	563	577	741	259
Electrical equipment		347.4	354.5	363.4	367.9	367.1	368.6	363.9	362.3	367.7	368.3	376.0	382.9	497.5	182.7
Radio and phonographs		88.6	93.6	97.2	95.9	93.1	89.7	86.9	85.9	89.0	90.0	93.4	97.6	124.1	44.0
Communication equipment		85.3	88.4	91.8	93.5	92.4	89.7	87.5	87.0	90.3	90.0	93.9	96.5	119.3	32.8
Machinery, except electrical <sup>4</sup>	1,133	1,158	1,179	1,202	1,204	1,209	1,208	1,202	1,209	1,217	1,207	1,202	1,232	1,293	529
Machinery and machine-shop products		489.9	499.1	506.0	505.6	506.7	509.0	502.2	505.9	511.8	507.9	514.4	518.6	586.0	207.6
Engines and turbines		51.5	52.3	52.6	52.5	52.1	50.5	51.5	52.4	52.1	53.5	53.9	54.7	79.5	18.7
Tractors		61.4	61.8	61.6	60.9	59.8	59.2	60.0	61.1	60.4	56.3	44.8	62.2	52.4	31.3
Agricultural machinery, excluding tractors		76.0	76.5	77.1	76.2	75.9	72.8	72.6	74.9	76.3	75.2	76.2	75.9	45.1	28.5
Machine tools		43.3	44.1	47.3	47.5	47.6	48.0	47.8	46.8	47.0	47.5	47.7	49.2	109.7	36.6
Machine-tool accessories		52.0	53.5	54.4	54.5	54.7	55.3	55.1	51.8	55.4	55.5	55.9	55.9	105.4	25.8
Textile machinery		41.0	41.2	41.6	41.6	41.6	41.8	41.8	41.4	42.0	41.6	41.4	41.1	28.5	21.9
Pumps and pumping equipment		67.7	68.6	69.4	69.1	68.9	69.1	67.9	68.5	70.0	71.6	72.2	73.7	92.8	24.9
Typewriters		16.1	16.8	18.4	18.9	20.6	21.0	22.1	22.9	23.7	23.8	24.1	24.9	12.0	16.2
Cash registers; adding, and calculating machines		41.5	42.4	43.8	44.1	44.2	44.9	44.6	45.2	45.8	45.6	46.3	46.1	34.8	19.7
Washing machines, wringers, and driers, domestic		9.6	10.2	12.5	15.5	15.7	15.7	15.6	15.7	16.4	16.0	16.2	16.3	13.3	7.5
Sewing machines, domestic and industrial		15.1	15.1	15.0	14.9	14.8	14.6	14.3	14.0	14.0	13.9	13.8	13.7	10.7	7.8
Refrigerators and refrigeration equipment		73.8	76.3	79.3	79.5	81.0	81.7	82.3	84.3	84.8	82.5	79.7	81.0	54.4	35.2
Transportation equipment, except automobiles	439	442	444	453	453	449	439	414	430	434	438	462	465	2,508	159
Locomotives		25.2	25.3	26.5	26.5	26.6	26.5	17.2	26.4	26.3	26.4	26.6	26.6	34.1	6.5
Cars, electric- and steam-railroad		56.7	56.2	56.1	55.9	54.5	54.5	54.6	54.5	55.0	53.9	53.9	54.4	60.5	24.5
Aircraft and parts, excluding aircraft engines		151.1	151.4	151.6	149.8	145.3	138.5	133.5	130.3	127.6	125.1	137.3	136.1	794.9	39.7
Aircraft engines		28.5	28.7	28.5	28.0	27.5	26.7	21.6	25.6	25.9	25.1	24.8	24.6	233.5	8.9
Shipbuilding and boatbuilding		86.8	88.9	92.7	94.5	97.3	97.5	99.5	103.4	108.9	116.1	122.5	125.8	1,225.2	69.2
Motorcycles, bicycles, and parts		8.9	9.5	12.0	13.6	13.8	13.3	11.6	10.8	12.4	12.9	14.4	14.8	10.0	7.0
Automobiles	759	758	776	784	780	782	788	763	787	739	767	772	784	714	402
Nonferrous metals and their products <sup>5</sup>	368	378	385	398	404	403	399	395	388	399	398	406	413	449	229
Smelting and refining, primary, of nonferrous metals		40.6	40.7	41.2	41.4	41.2	40.2	41.4	41.9	42.0	41.4	41.0	40.8	56.4	27.6
Alloying; and rolling and drawing of nonferrous metals, except aluminum		52.6	54.4	54.7	54.5	54.6	54.3	52.9	51.9	52.6	52.6	53.7	54.6	75.8	38.8
Clocks and watches		23.1	24.2	27.0	28.2	28.8	28.6	27.5	25.9	28.3	28.3	28.5	28.8	25.2	20.3
Jewelry (precious metals) and jewelers' findings		26.1	26.1	26.8	27.5	27.5	27.1	26.3	25.8	26.3	26.4	27.1	27.6	20.5	14.4
Silverware and plated ware		26.7	27.0	28.0	28.3	28.1	27.7	27.4	26.5	27.4	27.2	27.5	27.5	15.1	12.1

See footnotes at end of table.

TABLE A-6: Estimated Number of Production Workers in Manufacturing Industries<sup>1</sup>—Continued

(In thousands)

Industry group and industry	1949			1948										Annual average	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	1939
<i>Durable goods—Continued</i>															
Nonferrous metals and their products <sup>2</sup> —Con.															
Lighting equipment		30.5	29.9	30.9	31.8	31.9	32.2	31.6	30.2	30.9	30.4	31.3	33.1	28.2	20.8
Aluminum manufactures		38.7	39.7	40.6	40.9	40.1	38.5	39.5	39.3	42.3	42.7	44.2	45.2	79.4	23.5
Sheet-metal work, not elsewhere classified		32.9	34.3	36.4	37.1	37.3	37.0	37.3	36.8	36.4	36.7	37.5	38.3	37.9	18.7
Lumber and timber basic products <sup>3</sup>	703	708	717	785	821	831	843	844	829	799	772	754	749	535	420
Sawmills and logging camps		567.2	571.8	632.4	667.2	678.2	691.4	692.1	681.1	654.5	627.7	611.0	606.9	435.8	313.7
Planing and plywood mills		140.6	145.4	152.4	154.1	152.8	152.1	152.5	148.3	145.8	144.0	142.7	142.3	99.2	79.1
Furniture and finished lumber products <sup>3</sup>	429	437	440	462	470	470	466	461	452	459	458	470	485	366	328
Mattresses and bedsprings		31.8	31.4	33.4	35.7	37.1	36.8	35.2	33.2	33.4	33.3	34.9	37.0	21.7	20.8
Furniture		240.5	242.1	254.1	256.5	255.6	252.5	249.7	244.4	248.1	249.6	256.2	263.7	200.0	177.9
Wooden boxes, other than cigar		31.4	32.4	35.1	35.6	34.9	34.4	34.6	35.6	35.6	34.8	36.0	37.0	35.4	28.3
Caskets and other morticians' goods		18.0	18.7	18.8	19.5	19.2	19.5	19.4	18.9	19.4	19.9	20.3	20.9	14.2	13.9
Wood preserving		16.4	16.5	17.0	17.0	17.1	17.3	17.7	17.2	16.8	16.5	16.2	16.7	12.4	12.6
Wood, turned and shaped		32.2	32.4	33.4	33.9	34.5	34.3	34.6	33.6	35.4	34.3	35.0	35.7	26.4	24.6
Stone, clay, and glass products <sup>3</sup>	433	440	448	462	467	468	464	461	450	458	454	451	452	360	294
Glass and glassware		111.2	113.6	118.8	121.8	123.2	122.9	119.7	114.9	120.5	121.5	121.8	121.7	90.8	71.4
Glass products made from purchased glass		14.0	14.4	14.7	14.7	14.4	13.9	13.9	14.3	14.2	14.1	14.2	14.4	11.3	10.0
Cement		36.4	36.5	37.0	37.2	36.9	36.2	36.9	37.0	36.5	36.0	35.5	35.3	27.1	24.4
Brick, tile, and terra cotta		78.5	79.9	83.1	83.5	83.5	83.6	83.4	81.9	82.1	79.6	77.9	77.3	52.5	58.0
Pottery and related products		60.4	60.2	61.6	61.5	61.0	60.3	60.0	57.0	59.0	58.5	57.9	58.9	45.0	33.8
Gypsum		7.3	7.4	7.5	7.8	7.9	7.8	7.8	7.8	7.6	7.5	7.5	7.6	4.5	4.9
Wallboard, plaster (except gypsum), and mineral wool		13.2	14.3	14.8	14.9	14.8	14.7	14.7	14.7	14.5	14.5	14.5	14.3	11.1	8.1
Lime		10.4	10.4	10.7	10.7	10.7	10.8	10.8	10.8	10.7	11.0	11.1	10.9	9.3	9.8
Marble, granite, slate, and other products		18.9	18.4	19.2	19.0	19.0	18.9	19.0	18.7	18.5	18.1	17.9	18.4	12.5	18.5
Abrasives		20.1	20.6	20.6	20.5	20.6	20.5	20.7	21.1	20.5	20.1	20.1	20.1	23.4	7.7
Asbestos products		23.2	24.1	25.3	25.8	25.7	24.9	25.1	24.1	25.0	25.1	25.2	25.3	22.0	15.9
<i>Nondurable goods</i>															
Textile-mill products and other fiber manufactures <sup>3</sup>	1,149	1,190	1,200	1,236	1,245	1,249	1,261	1,274	1,243	1,295	1,293	1,301	1,312	1,237	1,144
Cotton manufactures, except smallwares		490.6	494.9	507.5	508.9	511.4	516.9	521.5	509.9	527.7	524.7	526.4	529.4	526.3	418.4
Cotton smallwares		12.6	12.8	13.1	13.3	13.4	13.4	13.5	13.4	14.0	14.4	14.6	14.9	17.8	14.1
Silk and rayon goods		114.9	118.0	120.8	122.0	122.4	122.1	121.5	116.5	121.2	120.3	120.1	120.0	104.1	126.6
Woolen and worsted manufactures, except dyeing and finishing		144.2	149.1	157.4	158.2	159.6	165.8	169.8	167.5	173.8	173.2	175.0	178.3	174.1	157.7
Hosiery		139.0	137.7	140.5	142.3	141.7	141.7	143.7	135.3	145.6	147.0	149.7	151.9	125.9	168.0
Knitted cloth		10.9	10.9	11.2	11.5	11.3	11.1	11.2	11.1	11.2	11.5	11.8	11.7	12.6	11.5
Knitted outerwear and knitted gloves		32.0	31.4	33.2	33.9	32.8	31.8	31.7	30.3	33.1	33.8	33.4	34.0	29.7	29.7
Knitted underwear		40.7	40.4	43.6	46.1	47.9	49.1	50.1	50.2	51.8	52.3	53.8	54.1	44.9	40.7
Dyeing and finishing textiles, including woolen and worsted		91.1	90.2	92.5	91.9	91.5	91.1	91.7	91.0	93.1	94.2	95.0	95.1	80.2	70.6
Carpets and rugs, wool		39.7	40.0	40.7	40.7	40.8	40.7	40.0	40.0	40.0	39.7	39.4	39.4	24.5	27.0
Hats, fur-felt		11.6	11.7	11.7	12.0	11.5	12.5	13.3	12.3	13.4	12.9	12.7	13.7	11.0	15.4
Jute goods, except felts		4.2	4.3	4.3	4.3	4.1	4.0	4.3	4.3	4.3	4.2	4.3	4.1	4.2	3.8
Cordage and twine		14.6	14.7	14.9	15.1	14.9	15.3	15.4	15.8	16.2	16.4	16.7	17.1	18.3	12.8
Apparel and other finished textile products <sup>3</sup>	1,178	1,177	1,129	1,147	1,161	1,175	1,173	1,157	1,070	1,095	1,082	1,103	1,165	958	790
Men's clothing, not elsewhere classified		290.7	279.8	281.3	285.5	290.0	297.1	295.7	274.8	291.3	287.0	287.1	291.3	265.9	229.6
Shirts, collars, and nightwear		66.7	62.9	66.8	70.4	70.7	70.1	69.6	68.5	72.4	73.2	74.2	74.4	67.2	74.0
Underwear and neckwear, men's		18.8	17.4	19.0	19.4	18.9	18.1	17.9	16.7	18.2	18.4	18.7	19.0	16.3	17.0
Work shirts		15.7	13.8	16.0	16.5	16.6	16.1	16.4	16.3	16.4	16.1	15.7	15.4	18.5	14.1
Women's clothing, not elsewhere classified		501.6	483.3	486.5	489.4	488.8	490.3	478.8	437.0	435.4	427.6	440.0	481.7	345.3	286.2
Corsets and allied garments		18.5	18.8	19.4	19.3	19.3	19.0	18.6	17.3	18.1	18.5	19.2	19.9	16.5	18.8
Millinery		23.7	21.7	20.9	19.4	22.6	21.6	21.7	19.4	17.5	18.0	20.6	24.2	23.3	25.5
Handkerchiefs		5.2	5.4	5.5	5.5	5.3	5.0	4.9	4.0	4.9	5.0	5.1	5.1	5.7	5.1
Curtains, draperies, and bedspreads		20.1	17.6	19.5	20.6	20.9	21.3	21.8	19.1	19.9	20.1	21.1	23.2	25.2	17.8
Housefurnishings, other than curtains, etc.		24.9	24.0	25.6	26.3	25.5	24.8	24.1	22.2	22.1	21.9	22.9	24.0	24.0	11.2
Textile bags		24.0	23.8	24.1	23.6	23.5	23.2	22.9	22.3	21.5	21.3	21.2	21.7	19.6	12.6
Leather and leather products <sup>3</sup>	368	367	365	364	363	376	379	383	375	373	359	372	396	340	347
Leather		46.0	46.5	47.3	46.4	47.7	48.0	47.7	47.2	47.9	47.5	47.6	49.2	46.5	50.0
Boot and shoe cut stock and findings		17.4	17.1	17.0	17.0	17.6	17.9	18.1	17.7	17.8	17.3	17.7	18.9	19.2	20.0
Boots and shoes		239.3	237.2	232.1	229.1	238.5	241.0	244.8	239.5	236.6	225.5	235.9	254.1	205.6	230.9
Leather gloves and mittens		9.7	9.4	10.6	12.4	12.8	13.0	13.2	12.8	12.9	12.4	12.2	12.5	15.4	10.0
Trunks and suitcases		11.1	11.0	13.1	14.6	14.6	14.3	13.8	13.3	13.3	13.2	13.3	13.9	13.7	8.3
Food <sup>3</sup>	1,155	1,153	1,182	1,253	1,306	1,400	1,537	1,418	1,364	1,257	1,091	1,047	1,149	1,056	855
Slaughtering and meat packing		205.1	213.1	218.2	205.3	197.7	195.2	196.8	201.3	199.6	124.5	104.0	193.6	174.0	135.0
Butter		33.1	33.3	34.9	34.6	35.5	36.6	38.2	39.6	40.5	39.2	36.9	34.3	33.2	20.1
Condensed and evaporated milk		19.2	19.0	18.7	19.5	20.3	21.1	21.9	22.6	23.0	21.6	20.5	19.3	19.9	10.9
Ice cream		24.4	23.5	23.9	24.3	26.2	29.6	31.8	32.8	31.6	29.2	27.1	24.4	23.0	17.6
Flour		40.5	41.3	41.5	41.7	40.1	41.5	42.3	42.7	41.4	39.9	40.1	40.3	32.9	27.8
Feeds, prepared		28.9	28.7	28.9	28.9	29.2	29.3	29.5	29.3	28.7	27.9	26.6	26.8	25.0	17.3

See footnotes at end of table.



TABLE A-6: Estimated Number of Production Workers in Manufacturing Industries<sup>1</sup>—Continued

[In thousands]

Industry group and industry	1949					1948								Annual average	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	1939
<b>Nondurable goods—Continued</b>															
<b>Food<sup>2</sup>—Continued</b>															
Cereal preparations.....		13.1	12.8	12.5	13.1	13.2	13.2	13.8	13.9	13.0	12.8	12.2	12.1	11.4	8.4
Baking.....		243.7	244.1	251.7	255.7	258.0	253.2	251.0	250.0	247.8	242.2	239.5	241.7	211.3	190.4
Sugar refining, cane.....		24.7	24.6	24.2	22.4	22.4	25.0	25.3	25.8	22.1	21.4	20.8	23.5	16.7	15.9
Sugar, beet.....		4.8	5.3	10.8	25.2	25.0	10.6	9.1	7.5	7.3	6.6	5.7	5.9	10.1	11.6
Confectionery.....		71.1	74.1	82.4	89.8	88.9	51.1	71.6	63.0	64.5	62.1	67.1	72.5	59.5	55.7
Beverages, nonalcoholic.....		37.8	38.7	39.5	40.4	43.0	46.6	49.6	50.3	46.2	43.4	40.5	38.4	32.2	23.8
Malt liquors.....		73.1	74.5	77.9	80.7	81.3	86.0	87.8	88.2	83.1	73.6	77.3	74.8	54.3	40.5
Canning and preserving.....		120.8	131.8	163.1	195.2	289.1	444.4	326.2	274.3	186.9	153.2	140.7	135.5	188.5	150.3
<b>Tobacco manufactures<sup>2</sup>.....</b>	<b>82</b>	<b>83</b>	<b>83</b>	<b>87</b>	<b>90</b>	<b>90</b>	<b>88</b>	<b>86</b>	<b>83</b>	<b>85</b>	<b>84</b>	<b>86</b>	<b>87</b>	<b>91</b>	<b>93</b>
Cigarettes.....		32.8	33.5	34.1	35.1	35.1	34.9	34.5	33.6	33.3	33.1	33.2	33.2	33.9	27.4
Cigars.....		42.3	42.1	45.2	47.2	46.5	44.9	44.1	41.7	43.6	43.7	45.2	46.2	47.5	55.8
Tobacco (chewing and smoking) and snuff.....		7.5	7.8	7.8	7.8	7.9	7.8	7.8	7.6	7.7	7.6	7.7	7.8	9.3	10.1
<b>Paper and allied products<sup>2</sup>.....</b>	<b>381</b>	<b>386</b>	<b>391</b>	<b>401</b>	<b>403</b>	<b>401</b>	<b>398</b>	<b>394</b>	<b>388</b>	<b>390</b>	<b>389</b>	<b>389</b>	<b>393</b>	<b>324</b>	<b>265</b>
Paper and pulp.....		202.4	204.5	207.0	206.6	206.0	206.7	206.7	205.8	204.2	204.7	203.7	203.8	160.3	137.8
Paper goods, other.....		61.5	62.2	63.5	63.6	63.5	62.7	61.8	60.5	61.7	61.5	61.4	62.0	50.2	37.7
Envelopes.....		12.7	12.8	13.1	13.1	12.9	12.6	12.3	12.3	12.5	12.7	12.7	12.7	10.2	8.7
Paper bags.....		16.4	16.5	16.7	17.0	17.8	17.8	17.7	17.4	17.5	17.6	18.0	18.2	13.1	11.1
Paper boxes.....		91.9	94.5	99.9	101.5	99.8	97.0	94.8	90.9	92.8	91.4	92.7	95.2	89.6	69.3
<b>Printing, publishing, and allied industries<sup>2</sup>.....</b>	<b>432</b>	<b>433</b>	<b>436</b>	<b>443</b>	<b>442</b>	<b>442</b>	<b>436</b>	<b>432</b>	<b>430</b>	<b>433</b>	<b>432</b>	<b>432</b>	<b>435</b>	<b>331</b>	<b>328</b>
Newspapers and periodicals.....		150.4	149.7	152.3	151.0	150.7	149.4	147.7	146.8	146.9	146.4	145.0	144.8	113.0	118.7
Printing; book and job.....		184.2	186.5	188.7	187.8	188.8	185.4	183.1	183.0	184.4	184.2	183.2	185.4	138.7	127.6
Lithographing.....		29.5	30.1	31.3	31.4	31.4	31.1	31.2	31.2	31.1	30.9	31.3	31.4	25.9	26.3
Bookbinding.....		33.4	33.9	34.5	35.1	34.9	34.4	34.8	33.3	35.1	35.1	35.9	37.2	29.4	25.8
<b>Chemicals and allied products<sup>2</sup>.....</b>	<b>586</b>	<b>588</b>	<b>594</b>	<b>597</b>	<b>599</b>	<b>600</b>	<b>597</b>	<b>586</b>	<b>567</b>	<b>574</b>	<b>572</b>	<b>580</b>	<b>587</b>	<b>734</b>	<b>288</b>
Paints, varnishes, and colors.....		46.0	47.1	47.6	48.1	48.7	48.6	49.7	49.1	49.1	48.7	48.0	48.6	38.2	28.3
Drugs, medicines, and insecticides.....		65.7	65.6	64.4	64.8	64.4	64.2	63.9	63.4	63.6	63.6	64.2	65.2	56.0	27.5
Perfumes and cosmetics.....		11.0	11.2	12.2	12.9	12.8	12.5	12.4	10.8	10.9	11.0	11.2	11.6	14.1	10.4
Soap.....		26.3	26.4	26.5	26.5	27.2	27.0	25.1	24.0	23.7	21.7	21.8	24.9	17.9	15.3
Rayon and allied products.....		65.2	65.1	64.8	63.9	63.9	63.7	64.9	64.4	64.3	63.4	63.5	63.7	54.0	48.3
Chemicals, not elsewhere classified.....		204.7	209.4	211.2	210.7	210.0	210.9	211.2	202.0	207.6	204.8	207.2	205.4	144.5	69.9
Explosives and safety fuses.....		26.7	27.1	27.4	27.4	27.7	27.6	27.8	27.4	26.7	25.7	25.6	25.8	112.0	7.3
Compressed and liquefied gases.....		9.1	9.3	9.5	9.5	9.9	9.8	10.1	10.0	10.1	10.0	10.0	9.9	7.8	4.0
Ammunition, small-arms.....		7.0	7.1	7.2	7.4	7.4	7.5	7.5	7.7	7.8	7.8	7.8	7.8	154.1	4.3
Fireworks.....		2.6	2.6	2.4	2.6	2.6	2.8	2.7	2.2	2.5	2.6	2.4	2.4	28.2	1.2
Cottonseed oil.....		21.6	24.0	25.7	27.2	27.3	23.4	14.3	12.5	12.7	13.6	15.2	17.6	20.4	15.3
Fertilizers.....		33.9	30.4	28.7	28.7	28.8	28.7	26.8	25.5	27.2	32.3	36.7	38.1	27.5	18.8
<b>Products of petroleum and coal<sup>2</sup>.....</b>	<b>162</b>	<b>162</b>	<b>162</b>	<b>164</b>	<b>167</b>	<b>162</b>	<b>168</b>	<b>170</b>	<b>170</b>	<b>170</b>	<b>167</b>	<b>164</b>	<b>165</b>	<b>125</b>	<b>106</b>
Petroleum refining.....		113.1	112.9	113.3	113.7	107.6	114.0	115.9	117.0	116.6	114.7	113.6	113.5	83.1	73.2
Coke and byproducts.....		32.0	32.3	32.1	32.2	32.1	32.4	32.4	31.8	31.7	31.1	29.7	30.7	25.5	21.7
Paving materials.....		2.2	2.2	2.6	2.8	2.9	2.9	2.8	2.7	2.6	2.4	2.3	1.8	2.1	2.5
Roofing materials.....		13.5	13.4	15.1	17.2	18.1	18.0	17.8	17.4	17.7	17.3	17.4	17.4	13.1	8.1
<b>Rubber products<sup>2</sup>.....</b>	<b>183</b>	<b>186</b>	<b>191</b>	<b>196</b>	<b>199</b>	<b>198</b>	<b>197</b>	<b>195</b>	<b>191</b>	<b>195</b>	<b>195</b>	<b>198</b>	<b>204</b>	<b>194</b>	<b>121</b>
Rubber tires and inner tubes.....		86.5	88.4	89.6	91.2	90.0	91.4	91.5	90.9	91.9	91.4	92.6	96.4	90.1	74.2
Rubber boots and shoes.....		20.6	22.4	23.5	23.2	22.9	22.5	22.0	20.7	21.8	21.7	22.1	22.6	23.8	14.8
Rubber goods, other.....		79.3	80.1	82.6	84.5	84.7	82.9	80.8	79.2	81.7	81.7	84.0	85.7	79.9	51.9
<b>Miscellaneous industries<sup>2</sup>.....</b>	<b>403</b>	<b>411</b>	<b>415</b>	<b>435</b>	<b>453</b>	<b>460</b>	<b>451</b>	<b>441</b>	<b>425</b>	<b>430</b>	<b>432</b>	<b>436</b>	<b>447</b>	<b>445</b>	<b>244</b>
Instruments (professional and scientific), and fire-control equipment.....		30.8	30.6	30.2	30.3	29.5	29.0	28.1	28.0	27.7	27.5	27.6	27.7	86.7	11.3
Photographic apparatus.....		37.6	38.4	39.6	39.6	39.7	39.7	39.7	39.0	38.3	37.8	38.4	38.8	35.5	17.7
Optical instruments and ophthalmic goods.....		26.3	26.1	26.3	26.0	26.4	26.1	26.0	23.9	25.6	26.7	27.0	27.2	33.3	11.9
Pianos, organs, and parts.....		12.2	12.6	13.3	13.5	13.9	13.5	13.3	12.3	13.5	13.7	13.3	14.8	12.2	7.8
Games, toys, and dolls.....		33.8	32.3	39.5	46.6	49.4	48.1	45.3	42.4	41.1	40.2	40.3	38.5	19.1	19.1
Buttons.....		12.6	12.5	13.0	13.1	13.1	13.0	13.0	12.5	12.9	12.8	13.1	13.8	13.1	11.2
Fire extinguishers.....		2.3	2.6	2.8	2.9	2.9	2.8	2.7	2.8	2.8	2.7	2.7	2.6	9.3	1.0

<sup>1</sup> Data are based upon reports from cooperating establishments covering both full- and part-time production and related workers who worked or received pay during the pay period ending nearest the 15th of the month. Major industry groups have been adjusted to levels indicated by Federal Security Agency data through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Data shown for the three most recent months are subject to revision without notation. Revised figures in any column other than the first three are identified by an asterisk for the first month's publication of such data.

<sup>2</sup> Estimates for the individual industries comprising the major industry groups have been adjusted to levels indicated by Federal Security Agency

data through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics. Such requests should specify the series desired.

More recently adjusted data for the individual industries comprising the major industry groups listed below supersede data shown in publications dated prior to:

Major industry group	Mimeographed Monthly Labor release	Review
Apparel and other finished textile products....	Jan. 1949	Apr. 1949

TABLE A-7: Indexes of Production-Worker Employment in Manufacturing Industries <sup>1</sup>

[1939 average=100]

Industry group and industry	1949					1948								Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
All manufacturing.....	151.3	153.2	154.7	159.4	161.6	163.3	164.6	161.7	158.5	158.2	155.5	156.1	160.3	177.7
Durable goods.....	174.9	177.7	180.6	186.5	188.6	188.9	188.4	185.8	185.0	184.5	183.9	185.1	188.1	241.7
Nondurable goods.....	132.7	133.9	134.2	138.0	140.3	143.0	145.9	142.7	137.7	137.5	133.1	133.3	138.4	127.4
<i>Durable goods</i>														
Iron and steel and their products <sup>1</sup> .....	155.9	158.8	161.1	165.2	166.8	167.1	166.2	164.5	161.4	162.4	161.4	161.7	164.8	177.6
Blast furnaces, steel works, and rolling mills.....	140.6	139.8	139.8	138.5	137.7	137.7	137.7	137.9	135.5	134.6	133.3	131.8	132.9	133.0
Gray-iron and semisteel castings.....	170.0	175.1	181.7	185.6	186.1	184.7	180.5	177.4	184.2	181.4	187.3	192.7	142.1	149.6
Malleable-iron castings.....	180.9	190.3	203.1	200.8	200.3	200.8	194.6	188.0	197.0	194.2	193.6	197.0	197.0	281.1
Steel castings.....	225.6	230.3	233.6	234.2	234.1	233.1	228.1	224.1	228.8	224.9	225.5	227.7	227.7	102.5
Cast-iron pipe and fittings.....	162.3	169.3	170.3	169.9	166.3	167.0	167.8	164.5	164.5	161.6	157.0	160.8	160.8	102.0
Tin cans and other tinware.....	135.8	140.9	145.9	148.0	153.2	157.7	154.4	148.8	140.8	134.9	132.4	134.0	139.4	163.8
Wire drawn from purchased rods.....	126.7	129.6	130.8	130.6	132.5	130.3	129.1	127.5	130.7	134.0	137.1	137.9	142.9	108.0
Wirework.....	135.3	136.9	138.8	138.4	138.4	140.8	139.6	137.6	132.4	135.2	137.9	142.9	141.3	181.5
Cutlery and edge tools.....	147.5	150.3	157.8	162.1	167.7	154.9	146.0	141.2	143.6	149.9	153.8	155.9	167.9	127.1
Tools (except edge tools, machine tools, files, and saws).....	152.5	157.1	159.3	160.3	160.8	161.6	160.6	160.8	163.9	164.7	166.7	167.9	167.9	127.1
Hardware.....	142.9	146.0	152.0	151.8	150.9	150.0	148.8	146.4	147.9	153.2	156.8	160.5	167.9	95.3
Plumbers' supplies.....	151.0	157.9	161.5	162.4	161.7	157.2	164.0	147.8	153.7	149.8	150.3	153.2	167.9	122.9
Stoves, oil burners, and heating equipment, not elsewhere classified.....	125.7	130.3	155.3	178.3	189.8	187.2	180.1	166.4	168.8	170.4	166.7	178.1	178.1	199.4
Steam and hot-water heating apparatus and steam fittings.....	185.8	196.1	202.3	204.7	206.4	202.3	198.1	185.9	197.5	198.2	195.0	204.5	204.5	163.9
Stamped and enameled ware and galvanizing.....	178.7	179.8	191.9	198.8	196.9	193.1	194.2	196.1	197.6	197.4	199.6	203.0	203.0	200.0
Fabricated structural and ornamental metal-work.....	180.6	182.9	184.7	185.3	186.7	183.0	180.8	176.0	176.9	178.0	179.8	179.9	179.9	164.9
Metal doors, sash, frames, molding, and trim.....	128.4	133.0	141.7	145.7	144.1	142.1	141.2	134.2	133.7	131.4	130.6	135.4	135.4	207.4
Bolts, nuts, washers, and rivets.....	185.0	186.9	188.4	186.3	185.6	184.6	183.1	184.5	187.3	187.8	189.8	190.0	190.0	266.3
Forgings, iron and steel.....	229.4	232.6	234.2	233.2	228.1	225.1	215.6	214.5	213.3	214.2	223.9	228.8	228.8	318.5
Wrought pipe, welded and heavy-riveted.....	220.5	219.3	219.2	220.7	223.6	222.2	221.1	222.1	225.1	211.0	210.8	215.5	215.5	298.5
Screw-machine products and wood screws.....	187.6	194.5	197.8	199.3	196.8	194.3	194.5	195.3	199.1	202.1	204.4	203.9	203.9	131.8
Steel barrels, kegs, and drums.....	113.2	118.1	120.6	120.3	122.1	124.2	125.9	122.4	121.7	117.7	119.5	121.9	121.9	1346.4
Firearms.....	421.3	424.9	421.3	421.3	414.9	406.4	401.0	403.0	402.6	397.9	395.1	390.0	390.0	285.9
Electrical machinery <sup>1</sup> .....	194.9	201.2	206.9	213.1	215.1	213.4	211.5	207.7	206.6	211.1	211.6	217.4	222.9	272.4
Electrical equipment.....	190.2	194.1	199.0	201.4	201.0	201.8	199.2	198.3	201.3	201.6	205.8	209.6	209.6	282.0
Radios and phonographs.....	201.3	212.8	221.0	218.1	211.7	203.8	197.6	195.3	202.3	204.6	212.2	221.9	221.9	367.5
Communication equipment.....	262.8	272.4	282.9	288.0	284.7	276.2	269.5	268.1	278.2	277.3	289.3	297.4	297.4	244.7
Machinery, except electrical <sup>1</sup> .....	214.4	219.1	223.1	227.5	227.9	228.7	228.7	227.4	228.8	230.4	228.5	227.4	233.1	244.7
Machinery and machine-shop products.....	236.0	240.4	243.7	243.5	244.0	245.1	241.9	243.7	246.5	244.6	247.7	249.8	249.8	282.2
Engines and turbines.....	275.9	280.4	281.9	281.2	279.1	270.8	276.3	281.0	279.5	286.7	289.1	293.3	293.3	426.4
Tractors.....	196.3	197.8	197.0	194.6	191.2	189.4	192.0	195.2	193.0	180.1	143.4	198.8	167.5	158.1
Agricultural machinery, excluding tractors.....	266.5	268.3	270.1	267.1	266.1	255.2	254.5	262.6	267.4	263.7	267.0	266.1	266.1	299.5
Machine tools.....	118.2	120.5	129.3	129.7	130.0	131.2	130.5	127.9	128.4	129.7	130.4	134.5	134.5	408.1
Machine-tool accessories.....	201.2	207.3	210.6	211.1	211.9	214.0	213.5	200.7	214.5	214.4	214.8	216.6	216.6	130.1
Textile machinery.....	187.0	188.2	190.0	189.7	190.1	190.7	191.0	188.9	191.6	189.8	189.2	187.6	187.6	372.9
Pumps and pumping equipment.....	272.3	275.9	278.9	277.6	276.8	278.0	273.1	275.5	281.4	288.0	290.2	296.2	296.2	73.8
Typewriters.....	99.6	103.4	113.2	116.6	126.8	129.8	136.5	141.0	145.9	147.0	148.7	153.5	153.5	177.0
Cash registers; adding and calculating machines.....	210.9	215.5	222.5	224.1	224.8	228.1	226.7	229.8	232.9	231.8	235.2	234.2	234.2	178.8
Washing machines, wringers, and driers, domestic.....	128.8	136.4	167.3	207.3	210.6	210.3	208.7	209.9	220.0	214.6	217.0	218.4	218.4	136.6
Sewing machines, domestic and industrial.....	193.0	192.1	191.4	189.8	188.6	186.4	182.4	178.8	178.6	177.2	175.9	174.8	174.8	154.9
Refrigerators and refrigeration equipment.....	210.0	216.9	225.6	226.0	230.4	232.3	234.1	239.9	241.3	234.6	226.7	230.4	230.4	1580.1
Transportation equipment, except automobiles.....	276.6	278.3	280.0	285.3	285.7	282.9	276.3	260.8	270.6	273.7	276.0	290.9	292.7	526.8
Locomotives.....	358.9	390.4	410.1	409.6	410.7	409.0	265.6	407.4	406.5	407.7	410.5	411.3	411.3	246.5
Cars, electric- and steam-railroad.....	231.2	229.3	228.6	227.8	222.1	222.2	222.8	222.3	224.4	219.6	219.7	221.8	221.8	2003.5
Aircraft and parts, excluding aircraft engines.....	380.8	381.6	382.1	377.4	366.2	349.2	336.4	328.5	321.5	315.3	346.0	342.9	342.9	1769.4
Aircraft engines.....	321.1	323.2	320.9	315.0	309.0	300.1	243.2	287.4	290.8	282.4	278.4	276.9	276.9	143.7
Shipbuilding and boatbuilding.....	125.4	128.3	133.9	136.5	140.5	140.8	143.7	149.3	157.2	167.6	176.8	181.6	181.6	177.5
Motorcycles, bicycles, and parts.....	128.0	136.4	171.6	194.6	197.4	190.3	165.8	154.4	177.5	185.2	206.0	211.7	211.7	196.0
Automobiles.....	188.7	188.5	193.0	194.8	193.9	194.4	195.9	189.7	195.5	183.6	190.5	191.9	195.0	204.3
Nonferrous metals and their products <sup>1</sup> .....	160.7	164.9	168.0	173.6	176.1	176.0	173.9	172.4	169.2	173.9	173.7	176.9	180.0	195.2
Smelting and refining, primary, of nonferrous metals.....	147.1	147.3	149.1	150.0	149.1	145.5	150.0	151.7	151.8	149.8	148.4	147.8	147.8	124.2
Alloying; and rolling and drawing of nonferrous metals, except aluminum.....	135.6	140.1	141.0	140.4	140.7	140.0	136.2	133.7	135.5	135.6	138.3	140.6	140.6	141.8
Clocks and watches.....	113.9	119.3	133.3	139.0	141.9	141.1	135.3	127.8	139.5	139.2	140.7	141.9	141.9	124.5
Jewelry (precious metals) and jewelers' findings.....	180.9	180.8	185.3	190.3	190.6	187.7	182.3	178.4	182.1	182.6	187.6	191.0	191.0	137.8
Silverware and plated ware.....	219.8	223.0	230.8	233.5	231.5	228.5	226.2	218.3	225.5	224.2	226.8	226.5	226.5	337.4
Lighting equipment.....	148.8	146.1	151.0	155.2	155.6	157.3	154.1	147.6	150.8	148.4	152.7	161.7	161.7	201.9
Aluminum manufactures.....	164.2	168.6	172.5	173.6	170.5	163.5	167.9	166.7	179.5	181.5	187.7	192.1	192.1	127.3
Sheet-metal work, not elsewhere classified.....	175.4	182.7	194.4	197.9	199.0	197.2	198.7	196.1	193.9	195.5	199.9	204.4	204.4	139.0
Lumber and timber basic products <sup>1</sup> .....	167.3	168.4	170.6	186.7	195.4	197.7	200.6	200.8	197.3	190.0	183.6	179.4	178.3	125.4
Sawmills and logging camps.....	180.9	182.3	201.6	212.7	216.2	220.4	220.7	217.2	208.7	200.1	194.8	193.5	193.5	
Planing and plywood mills.....	177.7	183.8	192.6	194.8	193.2	192.3	192.8	187.2	184.2	182.0	180.4	179.9	179.9	

See footnotes at end of table.



TABLE A-7: Indexes of Production-Worker Employment in Manufacturing Industries<sup>1</sup>—Continued

[1939 average=100]

Industry group and industry	1949						1948								Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	
Durable goods—Continued															
Furniture and finished lumber products <sup>1</sup> .....	130.8	133.2	134.1	140.7	143.1	143.3	142.0	140.5	137.8	139.8	139.7	143.4	147.8	111.7	
Mattresses and bedsprings.....	155.0	152.9	162.9	173.9	180.9	179.5	171.7	161.9	163.0	162.6	170.4	180.3	180.3	105.9	
Furniture.....	135.2	136.1	142.8	144.2	143.6	141.9	140.3	137.4	139.4	140.3	144.0	148.2	112.4	112.4	
Wooden boxes, other than cigar.....	110.9	114.4	124.1	125.7	123.3	121.5	122.3	125.6	125.6	122.8	127.2	130.5	125.0	125.0	
Caskets and other morticians' goods.....	129.2	134.4	135.0	140.1	138.4	140.1	139.6	135.6	139.7	142.8	145.8	150.2	102.4	102.4	
Wood preserving.....	130.7	130.9	135.4	135.5	136.0	137.9	141.0	137.1	133.6	131.1	128.7	132.7	98.7	98.7	
Wood, turned and shaped.....	131.1	132.0	136.1	138.0	140.4	139.7	140.9	136.7	144.0	139.5	142.6	145.5	107.4	107.4	
Stone, clay, and glass products <sup>2</sup> .....	147.6	150.0	152.5	157.4	158.9	159.4	158.2	157.0	153.2	156.0	154.7	153.7	153.9	122.5	
Glass and glassware.....	155.8	159.2	169.5	170.6	172.6	172.3	167.8	161.0	168.9	170.3	170.7	170.6	170.6	139.9	
Glass products made from purchased glass.....	140.0	143.6	147.0	147.3	143.8	139.1	138.5	143.0	142.0	140.7	142.1	143.5	113.1	113.1	
Cement.....	149.5	149.8	152.1	153.0	151.5	148.5	151.7	151.8	150.0	147.7	145.9	144.8	111.5	111.5	
Brick, tile, and terra cotta.....	135.2	137.7	143.1	143.9	143.9	144.0	143.7	141.0	141.4	141.4	137.1	134.3	133.1	90.5	
Pottery and related products.....	178.5	177.9	182.0	181.7	180.4	178.3	177.3	168.6	174.5	173.1	171.2	174.2	132.9	132.9	
Gypsum.....	148.8	150.4	151.5	157.6	160.7	158.5	157.1	157.4	154.4	152.5	152.8	154.5	91.2	91.2	
Wallboard, plaster (except gypsum), and mineral wool.....	162.3	176.3	181.9	183.6	182.6	181.7	180.8	180.6	178.5	179.0	178.7	176.2	137.2	137.2	
Lime.....	110.2	110.3	112.7	112.6	113.4	114.1	114.3	114.6	113.3	116.1	116.9	115.0	98.7	98.7	
Marble, granite, slate, and other products.....	102.2	99.6	103.9	102.6	102.9	102.1	102.5	101.0	99.6	97.8	96.6	99.3	67.4	67.4	
Abrasives.....	260.2	265.7	266.9	264.6	265.7	264.6	267.4	272.7	265.0	260.2	260.4	260.5	302.2	302.2	
Asbestos products.....	146.1	151.8	159.4	162.5	161.7	157.0	157.9	151.7	157.5	157.9	158.3	159.0	138.2	138.2	
Nondurable goods															
Textile-mill products and other fiber manufactures <sup>2</sup> .....	100.4	104.0	104.9	108.0	108.9	109.2	110.3	111.4	108.7	113.2	113.0	113.7	114.7	108.2	
Cotton manufactures, except smallwares.....	117.3	118.3	121.3	121.6	122.2	123.6	124.7	121.9	126.1	125.4	125.8	126.6	126.6	125.8	
Cotton smallwares.....	89.9	90.7	93.2	94.2	95.1	95.4	96.2	95.3	99.4	102.3	103.6	105.8	126.6	126.6	
Silk and rayon goods.....	90.8	93.2	95.4	96.4	96.4	96.7	96.5	95.9	92.0	95.8	95.0	94.9	94.8	82.2	
Woolen and worsted manufactures, except dyeing and finishing.....	91.5	94.6	99.8	100.4	101.2	105.2	107.7	106.3	110.3	109.9	111.0	113.1	110.4	110.4	
Hosiery.....	82.8	82.0	83.6	84.7	84.4	84.3	85.5	80.5	86.7	87.5	89.1	90.4	74.9	74.9	
Knitted cloth.....	94.9	94.8	97.2	99.3	98.0	95.9	97.5	96.7	96.8	99.4	101.9	101.4	109.4	109.4	
Knitted outerwear and knitted gloves.....	107.7	105.7	111.8	114.2	110.2	107.1	106.6	101.8	111.5	113.8	112.3	114.4	117.2	117.2	
Knitted underwear.....	99.9	99.3	107.1	113.3	117.7	120.6	123.0	123.2	127.1	128.3	132.0	132.8	110.4	110.4	
Dyeing and finishing textiles, including woolen and worsted.....	129.0	127.7	130.9	130.1	129.5	129.0	129.8	128.8	131.9	133.3	134.4	134.7	113.6	113.6	
Carpets and rugs, wool.....	146.8	148.0	150.7	150.7	150.9	150.6	148.1	148.0	146.8	146.8	145.7	145.7	90.8	90.8	
Hats, fur-felt.....	75.3	76.0	75.8	78.4	74.6	81.4	86.7	80.1	87.0	84.2	82.7	89.3	71.3	71.3	
Jute goods, except felts.....	111.5	112.2	113.5	114.3	107.1	104.5	114.3	112.6	114.2	112.0	112.8	109.3	110.6	110.6	
Cordage and twine.....	114.4	115.1	116.7	117.8	116.8	119.5	120.7	124.0	127.0	128.7	130.9	134.1	143.4	143.4	
Apparel and other finished textile products <sup>2</sup> .....	149.2	149.1	143.0	145.3	147.0	148.8	148.6	146.5	135.5	138.6	137.1	139.8	147.5	121.4	
Men's clothing, not elsewhere classified.....	126.6	121.8	122.5	124.4	128.9	129.4	128.8	119.7	126.9	125.0	125.0	126.8	115.8	115.8	
Shirts, collars, and nightwear.....	90.2	85.0	90.3	95.2	95.6	94.8	94.1	92.6	97.9	99.0	100.3	100.6	90.9	90.9	
Underwear and neckwear, men's.....	111.1	102.7	111.9	114.3	111.3	107.0	105.5	98.5	107.4	108.3	110.1	112.0	96.3	96.3	
Work shirts.....	110.9	97.7	112.9	117.1	117.5	113.8	116.3	115.7	116.1	114.3	111.4	109.0	131.3	131.3	
Women's clothing, not elsewhere classified.....	175.2	168.9	170.0	171.0	170.8	171.3	167.3	152.7	152.1	149.4	153.7	168.3	120.6	120.6	
Corsets and allied garments.....	98.6	100.4	103.4	102.8	103.0	101.5	99.0	92.4	96.5	98.8	102.4	106.1	88.1	88.1	
Millinery.....	93.0	84.9	82.0	76.0	88.4	84.8	85.2	76.2	68.4	70.4	80.8	94.8	91.5	91.5	
Handkerchiefs.....	103.0	106.0	107.6	108.4	104.4	98.8	96.2	77.7	96.6	99.2	99.8	99.6	113.1	113.1	
Curtains, draperies, and bedspreads.....	112.9	99.2	109.9	116.2	117.5	119.9	122.8	107.5	112.2	113.3	118.8	130.4	141.9	141.9	
Housefurnishings, other than curtains, etc.....	222.6	214.5	228.8	235.6	228.5	222.4	215.5	198.9	197.7	196.3	205.5	215.0	214.6	214.6	
Textile bags.....	190.5	188.5	190.9	187.2	186.2	183.6	181.6	176.6	170.2	168.6	168.2	171.7	155.7	155.7	
Leather and leather products <sup>2</sup> .....	106.0	105.8	105.0	104.8	104.5	108.3	109.3	110.4	108.1	107.4	103.3	107.1	114.1	98.1	
Leather.....	91.9	92.9	94.6	92.8	95.4	96.0	95.3	94.3	95.7	94.9	95.1	98.4	92.9	92.9	
Boot and shoe cut stock and findings.....	87.1	85.9	85.1	85.1	88.1	89.8	90.7	88.6	88.9	86.9	88.7	94.7	96.0	96.0	
Boots and shoes.....	103.6	102.7	100.5	99.2	103.3	104.4	106.0	103.7	102.5	97.7	102.2	110.1	89.0	89.0	
Leather gloves and mittens.....	97.0	93.6	106.0	124.1	128.2	129.9	132.1	127.8	128.8	123.9	121.9	125.4	153.7	153.7	
Trunks and suitcases.....	133.7	132.3	157.3	175.6	175.2	171.8	166.0	159.6	159.3	158.6	160.1	166.4	161.2	161.2	
Food <sup>2</sup> .....	135.2	134.9	138.3	146.6	152.9	163.8	179.9	166.0	159.7	147.1	127.7	122.6	134.5	123.5	
Slaughtering and meat packing.....	151.9	157.8	161.5	152.0	146.4	144.5	145.7	149.1	147.8	92.2	77.0	143.3	128.9	128.9	
Butter.....	164.5	165.4	173.4	172.1	176.2	181.7	189.8	196.8	201.2	194.5	183.3	170.5	165.2	165.2	
Condensed and evaporated milk.....	176.7	174.9	172.1	179.6	186.3	194.3	201.4	207.4	211.2	198.3	188.3	177.2	182.6	182.6	
Ice cream.....	138.4	133.4	135.7	137.8	148.6	167.9	180.7	186.3	179.1	166.0	153.9	138.5	130.7	130.7	
Flour.....	145.9	148.8	149.4	150.2	144.5	149.4	152.2	153.7	149.0	143.6	144.3	145.2	118.5	118.5	
Feeds, prepared.....	167.4	166.1	167.5	167.3	169.1	170.0	170.8	169.7	166.5	161.5	153.9	152.0	145.0	145.0	
Cereal preparations.....	156.8	152.8	149.8	156.8	158.0	157.6	165.6	165.7	155.2	152.6	146.4	144.7	136.0	136.0	
Baking.....	128.0	128.2	132.2	134.3	135.5	133.0	131.8	131.3	130.2	127.2	125.8	126.9	111.0	111.0	
Sugar refining, cane.....	155.7	154.7	152.8	141.4	141.0	157.4	159.1	162.4	139.1	134.5	131.3	148.1	105.1	105.1	
Sugar, beet.....	41.7	45.2	93.0	217.0	215.2	91.0	78.0	65.0	63.0	57.2	49.3	50.6	86.8	86.8	
Confectionery.....	127.6	133.0	147.9	161.2	159.5	145.6	128.5	113.0	115.8	111.4	120.5	130.2	106.7	106.7	
Beverages, nonalcoholic.....	158.5	162.2	165.7	169.7	180.5	195.4	207.9	210.9	194.0	182.0	170.1	161.2	135.1	135.1	
Malt liquors.....	180.6	184.0	192.5	199.5	200.9	212.6	217.0	218.0	205.5	181.9	191.2	184.9	134.1	134.1	
Canning and preserving.....	80.3	87.7	108.5	129.9	192.3	295.7	217.0	182.5	124.3	101.9	93.6	81.2	125.4	125.4	
Tobacco manufactures <sup>2</sup> .....	88.4	88.6	89.3	93.3	96.5	95.9	93.9	92.5	88.8	90.6	90.5	92.4	93.4	97.2	
Cigarettes.....	119.8	122.0	124.2	127.9	128.2	127.3	125.8	122.4	121.2	120.7	121.1	121.1	123.8	123.8	
Cigars.....	75.8	75.5	80.9	84.5	83.2	80.5	78.9	74.7	78.1	78.3	81.0	82.7	85.0	85.0	
Tobacco (chewing and smoking) and snuff.....	74.7	77.1	78.0	77.2	78.6	77.7	777								

See footnotes at end of table.

TABLE A-7: Indexes of Production-Worker Employment in Manufacturing Industries<sup>1</sup>—Continued

[1939 average=100]

Industry group and industry	1949			1948										Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
<i>Nondurable goods—Continued</i>														
Paper and allied products <sup>1</sup> .....	143.6	145.4	147.5	151.1	151.7	151.0	149.8	148.6	146.1	146.9	146.5	146.8	148.0	122.2
Paper and pulp.....	146.9	149.4	150.2	150.0	149.5	150.0	150.0	149.4	148.2	148.5	147.8	147.9	147.9	116.3
Paper goods, other.....	163.0	164.9	168.2	168.6	168.4	166.1	163.9	160.2	163.6	163.0	162.6	164.2	164.2	133.1
Envelopes.....	145.9	147.2	150.4	150.5	148.0	145.2	141.4	140.9	144.0	145.8	145.6	145.7	145.7	116.9
Paper bags.....	147.5	148.5	150.5	152.6	160.1	159.9	159.2	156.3	157.8	158.5	162.3	164.1	164.1	118.0
Paper boxes.....	132.5	136.3	144.0	146.3	144.0	139.9	136.7	131.0	133.9	131.8	133.7	137.3	137.3	129.3
Printing, publishing, and allied industries <sup>1</sup> .....	131.6	132.1	132.9	135.2	134.7	134.8	133.0	131.8	131.1	132.3	132.0	131.8	132.8	100.8
Newspapers and periodicals.....	126.8	126.1	128.3	127.2	127.0	125.9	124.4	123.7	123.8	123.3	122.2	122.0	122.0	95.2
Printing; book and job.....	144.3	146.2	147.8	147.1	147.9	145.3	143.5	143.4	144.5	144.3	143.5	145.3	145.3	108.7
Lithographing.....	112.3	114.5	119.3	119.7	119.7	118.5	118.9	118.9	118.9	118.3	117.6	119.0	119.5	98.5
Bookbinding.....	129.5	131.5	133.8	136.0	135.3	133.7	134.8	129.1	136.3	136.2	139.2	144.5	144.5	114.1
Chemicals and allied products <sup>1</sup> .....	203.3	203.9	206.1	207.0	207.8	208.1	207.1	203.3	196.6	199.2	198.4	201.4	203.6	254.5
Paints, varnishes, and colors.....	162.7	166.7	168.2	170.2	172.1	172.0	175.7	173.6	173.6	172.1	169.8	171.9	171.9	135.1
Drugs, medicines, and insecticides.....	238.5	238.2	233.9	235.3	234.1	233.2	232.1	230.2	231.1	231.1	233.3	236.9	236.9	203.6
Perfumes and cosmetics.....	105.5	107.1	116.8	124.1	122.7	119.7	119.0	104.1	105.0	105.2	107.6	111.2	111.2	135.8
Soap.....	172.3	173.3	173.5	173.9	178.4	177.2	164.7	157.6	155.4	142.2	142.9	163.1	163.1	117.1
Rayon and allied products.....	134.9	134.6	134.0	132.3	132.3	131.8	134.3	133.2	133.0	131.2	131.4	131.8	131.8	111.7
Chemicals, not elsewhere classified.....	292.7	299.5	302.1	301.4	300.3	301.6	302.1	288.9	296.9	292.9	296.3	293.8	293.8	206.7
Explosives and safety fuses.....	366.6	371.7	375.2	375.4	379.3	379.2	380.7	376.1	365.7	351.0	350.7	354.1	354.1	1536.9
Compressed and liquefied gases.....	229.0	232.8	239.6	239.2	247.9	247.0	253.1	252.1	254.2	250.9	252.4	250.1	250.1	197.3
Ammunition, small-arms.....	164.0	165.7	167.7	171.5	173.7	174.2	173.9	180.2	181.5	181.6	182.5	182.8	182.8	3595.4
Fireworks.....	227.3	227.2	208.0	220.6	227.4	243.3	231.8	190.2	212.2	219.7	210.1	203.9	203.9	2426.5
Cottonseed oil.....	141.3	157.1	168.3	178.0	179.0	183.3	93.8	82.0	83.0	89.1	99.5	115.0	115.0	133.4
Fertilizers.....	180.1	161.5	162.1	152.4	152.9	152.3	142.2	135.6	144.4	171.4	194.7	202.3	202.3	146.2
Products of petroleum and coal <sup>1</sup> .....	152.6	152.8	153.0	155.0	157.7	152.7	159.1	160.3	160.7	160.3	157.8	154.9	155.4	117.6
Petroleum refining.....	154.4	154.2	154.8	155.3	146.9	155.7	158.3	159.8	159.2	156.7	155.2	155.0	155.0	113.4
Coke and byproducts.....	147.4	148.9	147.8	148.2	147.8	149.2	149.3	146.7	145.9	143.2	136.8	141.4	141.4	117.4
Paving materials.....	87.8	91.4	105.0	113.6	117.2	118.0	113.5	108.8	107.1	97.1	92.7	75.3	75.3	87.0
Roofing materials.....	167.2	165.8	186.7	211.9	223.3	222.7	219.4	215.5	218.2	213.2	214.6	215.3	215.3	161.2
Rubber products <sup>1</sup> .....	151.0	154.1	157.8	161.8	164.5	163.5	162.8	160.9	157.7	161.6	161.1	163.8	168.9	160.3
Rubber tires and inner tubes.....	159.5	163.0	165.3	168.2	165.9	168.6	168.7	167.6	169.4	168.5	170.7	177.7	177.7	166.1
Rubber boots and shoes.....	138.8	151.1	158.0	156.2	154.0	151.2	148.3	139.4	146.9	146.4	149.0	152.4	152.4	160.5
Rubber goods, other.....	152.8	154.4	159.2	162.9	163.4	159.9	155.8	152.7	157.5	157.5	161.9	165.3	165.3	154.1
Miscellaneous industries <sup>1</sup> .....	164.8	167.9	169.4	177.7	184.9	187.8	184.2	180.1	173.9	175.7	176.6	178.4	182.6	181.7
Instruments (professional and scientific), and fire-control equipment.....	272.2	270.4	267.1	268.1	261.0	256.7	248.8	247.4	244.5	242.8	244.1	244.6	244.6	766.4
Photographic apparatus.....	212.8	217.1	223.9	224.1	224.5	224.4	224.5	220.9	216.6	214.1	217.1	219.8	219.8	200.9
Optical instruments and ophthalmic goods.....	221.5	219.6	221.5	218.7	221.8	219.7	218.3	201.0	215.6	224.1	226.9	229.1	229.1	280.3
Pianos, organs, and parts.....	156.3	161.8	170.8	173.7	178.2	173.6	170.4	157.3	173.7	175.2	170.5	189.7	189.7	156.2
Games, toys, and dolls.....	177.1	168.8	206.9	243.9	258.7	251.7	236.9	221.8	214.8	210.3	210.7	201.2	201.2	99.7
Buttons.....	112.0	111.1	116.2	116.6	117.0	116.1	116.2	111.2	114.8	114.2	116.3	122.6	122.6	116.6
Fire extinguishers.....	221.7	252.4	272.6	281.0	281.8	271.3	269.1	271.8	270.6	260.9	266.8	258.6	258.6	913.1

<sup>1</sup> See footnotes 1 and 2, table A-6.TABLE A-8: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries<sup>1</sup>

[1939 average=100]

Industry group and industry	1949			1948										Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
All manufacturing.....	349.3	357.9	363.0	377.6	379.3	382.9	382.2	374.7	360.0	359.0	346.7	347.1	358.4	334.4
Durable goods.....	390.1	403.2	412.6	430.1	430.3	435.7	423.7	418.8	403.0	401.3	390.8	393.4	402.0	469.5
Nondurable goods.....	309.5	313.6	314.5	326.3	329.5	331.2	341.6	331.6	318.0	317.6	303.6	301.9	315.7	202.3
<i>Durable goods</i>														
Iron and steel and their products <sup>1</sup> .....	336.7	348.4	356.7	371.4	373.6	376.0	365.0	360.5	336.9	340.5	334.4	329.6	340.8	311.4
Blast furnaces, steel works, and rolling mills.....	302.8	304.6	305.1	303.4	305.0	300.3	295.8	269.9	268.4	265.4	253.0	260.9	260.9	222.3
Gray-iron and semisteel castings.....	376.2	395.8	424.1	429.4	436.1	433.3	417.1	398.2	421.5	394.3	415.6	444.0	444.0	261.1
Malleable-iron castings.....	424.9	468.6	520.8	505.7	512.2	493.1	478.8	448.8	468.1	460.3	453.0	469.7	469.7	278.9
Steel castings.....	496.7	506.0	525.2	528.0	523.2	504.4	498.6	464.3	494.7	478.5	477.3	481.0	481.0	493.5
Cast-iron pipe and fittings.....	460.8	475.5	471.2	470.9	445.7	437.1	432.7	414.3	422.0	401.4	370.0	397.5	397.5	177.2
Tin cans and other tinware.....	306.5	317.7	340.3	334.7	351.6	391.7	364.9	353.2	310.8	286.1	274.9	289.8	289.8	161.6
Wire drawn from purchased rods.....	257.9	268.3	271.4	271.3	276.2	263.8	262.5	242.8	243.3	249.8	255.3	269.1	269.1	255.3
Wirework.....	323.0	332.0	334.7	331.6	333.2	322.5	326.6	315.1	295.7	298.2	302.0	316.4	316.4	202.6
Cutlery and edge tools.....	353.8	371.2	394.3	405.8	392.1	374.9	359.3	335.7	343.6	357.8	364.6	370.6	370.6	279.5

See footnotes at end of table.



TABLE A-8: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries<sup>1</sup>—Con.

[1939 average = 100]

Industry group and industry	1949					1948								Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
<b>Durable goods—Continued</b>														
<b>Iron and steel and their products<sup>2</sup>—Continued</b>														
Tools (except edge tools, machine tools, files, and saws).....		348.5	361.3	372.5	373.8	376.3	366.3	373.4	358.7	370.8	366.6	372.4	378.4	334.1
Hardware.....		339.3	350.0	370.8	367.4	363.1	349.2	347.1	325.0	340.9	343.9	362.4	373.9	245.8
Plumbers' supplies.....		321.8	343.3	378.3	376.9	381.9	338.7	338.7	316.7	329.0	324.0	322.2	329.0	161.7
Stoves, oil burners, and heating equipment, not elsewhere classified.....		261.7	277.2	350.4	400.0	448.4	426.7	416.9	371.0	379.2	371.4	363.8	388.2	210.9
Steam and hot-water heating apparatus and steam fittings.....		400.6	418.1	454.6	466.5	474.3	447.6	436.4	414.7	431.4	427.6	414.7	438.5	360.6
Stamped and enameled ware and galvanizing.....		429.3	440.0	481.0	491.9	482.6	453.7	467.9	452.0	462.9	464.1	463.2	470.6	307.0
Fabricated structural and ornamental metal-work.....		394.8	398.5	406.8	406.2	409.4	371.9	384.5	346.7	363.7	364.2	358.7	361.5	364.3
Metal doors, sash, frames, molding, and trim.....		297.4	311.7	341.8	344.0	340.1	340.4	328.5	287.5	309.1	288.6	283.9	292.2	292.6
Bolts, nuts, washers, and rivets.....		410.4	420.5	445.1	433.6	428.0	415.5	424.6	401.0	412.8	408.2	416.7	422.4	382.0
Forgings, iron and steel.....		529.4	540.5	548.5	544.8	533.6	513.4	475.8	449.6	454.1	443.7	467.6	487.5	507.9
Wrought pipe, welded and heavy-riveted.....		504.6	499.1	497.2	515.8	505.1	487.1	495.4	473.0	467.3	443.1	437.7	455.3	610.9
Screw-machine products and wood screws.....		421.3	441.3	453.5	450.5	453.0	433.1	429.4	426.8	436.9	445.4	452.0	456.5	560.4
Steel barrels, kegs, and drums.....		301.9	321.0	349.4	328.8	329.8	306.9	338.0	301.4	313.3	302.6	298.1	302.0	247.0
Firearms.....		1011.1	1007.6	1005.6	1018.0	998.7	963.1	927.8	952.7	945.9	915.6	906.0	911.3	2934.8
<b>Electrical machinery<sup>2</sup>.....</b>														
Electrical equipment.....	424.1	442.2	454.3	474.6	479.2	474.4	465.4	454.8	436.3	440.0	431.6	444.3	459.1	488.0
Radio and phonographs.....		420.3	427.0	444.1	447.8	445.4	442.2	434.7	418.3	419.2	410.3	420.5	432.2	475.6
Communication equipment.....		478.3	507.3	551.4	539.7	509.1	489.4	468.9	456.9	458.6	451.4	468.5	488.4	505.0
		524.1	547.2	564.3	587.6	591.6	567.3	550.6	513.4	534.8	530.0	551.2	578.6	538.2
<b>Machinery, except electrical<sup>2</sup>.....</b>														
Machinery and machine-shop products.....	448.5	463.0	473.7	491.6	486.9	491.7	484.0	482.3	473.6	480.7	466.4	463.8	475.2	443.7
Engines and turbines.....		501.9	517.7	532.6	527.3	531.5	523.2	520.0	507.9	519.6	509.3	511.9	514.7	501.8
Tractors.....		601.9	609.9	639.3	620.1	622.1	581.9	594.5	585.4	601.4	617.6	611.7	632.3	849.4
Agricultural machinery, excluding tractors.....		366.8	374.6	369.6	358.4	364.1	360.5	369.1	369.2	355.5	285.4	248.9	353.8	256.7
Machine tools.....		607.6	599.0	613.7	592.4	597.9	577.1	559.3	574.2	595.4	571.2	571.9	576.8	298.6
Machine-tool accessories.....		218.6	224.2	249.3	248.1	250.3	248.3	246.8	239.0	242.9	240.7	240.2	249.2	503.9
Textile machinery.....		367.4	384.0	395.7	387.1	391.8	391.0	400.8	361.6	383.5	389.9	392.6	388.9	671.1
Pumps and pumping equipment.....		429.2	437.8	461.4	452.0	453.2	458.9	454.3	438.6	459.1	444.8	441.3	443.2	230.1
Typewriters.....		619.9	609.7	632.9	625.5	620.1	615.0	605.0	605.0	616.5	630.7	630.2	638.0	761.8
Cash registers; adding, and calculating machines.....		220.4	229.5	265.7	271.1	265.0	286.8	298.0	319.2	325.2	325.0	336.8	347.5	143.8
Washing machines, wringers, and driers, domestic.....		461.8	474.2	494.2	487.9	481.3	492.3	489.2	507.0	505.9	489.4	504.7	499.9	341.6
Sewing machines, domestic and industrial.....		261.4	274.5	316.6	470.0	484.2	460.6	469.3	439.2	480.9	454.2	465.3	454.0	301.5
Refrigerators and refrigeration equipment.....		481.7	490.1	504.1	501.9	491.6	478.8	460.4	432.3	439.5	428.0	399.9	414.5	282.3
		449.8	460.8	490.0	486.2	508.7	493.3	491.4	486.0	508.9	472.3	450.4	454.7	264.5
<b>Transportation equipment, except automobiles.....</b>														
Locomotives.....	599.4	607.9	608.5	635.5	611.8	613.3	581.8	547.7	552.4	561.2	566.4	601.4	600.4	3080.3
Cars, electric and steam-railroad.....		894.0	917.9	1024.4	942.5	909.4	948.4	599.4	907.3	913.7	916.4	928.1	908.6	1107.3
Aircraft and parts, excluding aircraft engines.....		563.4	557.1	565.9	535.4	526.6	477.3	516.9	467.9	492.5	478.5	483.8	490.3	457.9
Aircraft engines.....		828.0	808.0	838.5	830.7	794.9	746.1	698.4	661.1	649.2	634.2	695.2	675.9	3496.3
Shipbuilding and boatbuilding.....		604.9	617.2	618.9	601.3	599.7	570.0	453.7	533.1	517.5	493.5	481.0	473.9	4528.7
Motorcycles, bicycles, and parts.....		263.2	274.4	288.6	262.4	291.2	283.1	290.6	304.5	321.7	345.7	373.6	383.7	3594.7
		260.4	274.4	353.7	468.2	474.3	424.5	374.2	301.8	345.7	370.5	418.2	426.6	253.6
<b>Automobiles.....</b>														
	415.7	444.7	455.3	451.2	438.9	451.3	425.9	419.1	423.3	385.7	362.6	386.2	396.5	321.2
<b>Nonferrous metals and their products<sup>2</sup>.....</b>														
Smelting and refining, primary, of nonferrous metals.....	345.3	363.6	372.2	391.2	391.9	394.2	386.3	379.3	360.6	368.2	362.5	368.3	377.1	354.5
Alloying; and rolling and drawing of nonferrous metals, except aluminum.....		339.2	344.2	342.1	340.0	344.6	342.4	345.7	338.6	329.7	321.6	314.1	307.2	353.9
Clocks and watches.....		276.5	296.9	309.8	298.2	308.0	307.0	298.5	284.3	278.3	268.9	271.7	283.5	353.4
Jewelry (precious metals) and jewelers' findings.....		282.8	295.9	335.9	348.1	353.0	348.6	334.9	304.5	332.2	327.4	336.8	339.1	238.4
Silverware and plated ware.....		377.0	371.5	402.3	407.3	397.0	383.8	365.9	345.7	372.5	362.4	377.7	391.8	211.8
Lighting equipment.....		506.4	512.7	554.3	572.0	565.0	555.4	519.4	481.8	527.4	522.4	529.4	543.3	212.8
Aluminum manufactures.....		348.2	319.8	335.4	343.1	340.0	345.6	328.2	317.0	305.9	293.3	308.3	328.4	240.4
Sheet-metal work, not elsewhere classified.....		341.0	349.8	357.5	360.2	355.7	325.8	332.9	316.8	338.5	347.0	356.8	362.0	591.6
		397.9	422.8	453.3	452.3	467.4	443.9	454.5	434.1	438.1	430.2	434.8	450.6	357.6
<b>Lumber and timber basic products<sup>2</sup>.....</b>														
Sawmills and logging camps.....	403.5	395.7	418.2	465.6	499.7	519.2	523.3	538.8	502.9	488.5	461.1	433.4	427.6	215.1
Planing and plywood mills.....		422.9	450.0	503.5	549.7	575.3	584.4	604.6	565.3	543.3	496.8	471.0	466.4	238.3
		425.6	439.9	481.5	484.9	491.9	478.6	485.4	455.3	456.1	445.1	435.4	424.7	197.8
<b>Furniture and finished lumber products<sup>2</sup>.....</b>														
Mattresses and bedsprings.....	310.7	315.7	317.9	345.4	349.2	354.9	344.5	337.3	320.4	326.0	325.6	333.0	349.2	183.9
Furniture.....		343.5	326.8	351.3	371.2	414.3	411.5	385.5	354.1	347.9	340.2	359.5	387.9	165.7
Wooden boxes, other than cigar.....		320.5	323.0	354.4	356.7	358.1	344.2	334.8	317.5	325.7	328.6	336.3	353.4	185.3
Caskets and other morticians' goods.....		270.5	280.9	313.9	320.7	325.0	315.7	327.3	318.6	325.7	301.1	304.8	320.5	215.8
Wood preserving.....		269.6	282.6	282.4	287.8	284.9	289.7	289.0	273.4	283.4	289.2	300.3	315.7	159.3
Wood, turned and shaped.....		347.6	354.4	372.4	378.3	383.3	379.3	382.8	378.0	358.1	351.5	334.2	331.6	181.9
		312.6	314.8	331.1	328.3	338.7	323.8	332.1	313.9	322.8	325.1	331.8	339.0	175.5
<b>Stone, clay, and glass products<sup>2</sup>.....</b>														
Glass and glassware.....	335.9	344.5	349.5	366.9	366.9	372.1	361.2	358.9	334.2	347.1	343.4	337.9	336.6	189.1
Glass products made from purchased glass.....		366.8	371.9	383.3	384.0	395.8	383.2	369.3	327.9	360.5	364.4	367.1	370.0	208.2
Cement.....		313.9	322.9	350.7	344.6	329.0	310.9	309.3	293.4	308.5	304.6	299.1	307.8	165.9
Brick, tile, and terra cotta.....		303.6	308.1	312.2	315.2	316.1	310.4	322.5	319.2	314.0	305.0	288.2	278.5	156.5
Pottery and related products.....		329.0	330.8	355.5	356.5	362.4	353.5	358.6	335.7	338.1	328.6	312.9	304.1	135.8
		392.1	386.8	404.1	407.5	399.8	374.0	383.4	345.2	364.2	359.8	357.0	361.2	191.9

See footnotes at end of table.

TABLE A-8: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries <sup>1</sup>-Con.

[1939 average=100]

Industry group and industry	1949					1948								Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	
Durable goods—Continued														
Stone, clay, and glass products <sup>1</sup> —Continued														
Gypsum		342.3	343.9	378.5	387.7	397.1	386.5	380.1	353.2	352.7	349.7	343.7	328.3	151.7
Wallboard, plaster (except gypsum), and mineral wool		380.6	454.9	493.0	495.7	493.8	491.8	484.7	491.6	475.7	465.0	467.9	448.7	223.8
Lime		296.8	304.3	313.0	322.3	326.9	323.8	324.5	309.9	311.9	314.7	314.5	301.5	171.6
Marble, granite, slate, and other products		197.1	190.6	204.2	190.9	196.8	194.2	195.6	184.9	185.9	183.2	176.6	179.3	90.8
Abrasives		562.7	574.9	580.7	583.3	594.6	588.5	576.3	571.6	578.8	565.0	546.6	560.2	480.2
Asbestos products		351.9	362.2	398.9	406.7	414.5	402.7	395.6	377.5	385.4	380.0	378.5	376.2	254.6
Nondurable goods														
Textile-mill products and other fiber manufactures <sup>1</sup>	260.3	274.8	276.7	291.9	291.9	291.2	295.5	298.2	285.4	304.6	303.8	307.1	315.6	178.9
Cotton manufactures, except smallwares		332.9	331.9	352.7	348.9	350.0	354.9	357.4	342.0	365.9	369.7	374.7	385.1	215.9
Cotton smallwares		214.4	213.8	224.2	222.1	222.5	228.7	227.3	226.5	238.0	238.3	243.0	249.1	214.6
Silk and rayon goods		267.3	276.2	293.4	299.1	299.4	301.3	295.2	276.9	292.2	289.0	287.6	288.0	138.6
Woolen and worsted manufactures, except dyeing and finishing		245.6	258.5	275.0	268.8	265.7	286.1	297.8	295.5	311.5	307.9	308.6	322.1	199.5
Hosiery		193.6	192.2	201.8	210.3	208.8	201.1	202.8	184.2	199.8	197.6	203.5	212.6	109.6
Knitted cloth		225.4	226.3	227.0	232.9	228.7	219.7	228.4	224.4	223.2	223.1	237.1	243.3	174.7
Knitted outerwear and knitted gloves		260.7	258.1	264.6	272.7	249.8	250.5	244.1	228.2	260.8	266.4	261.2	268.8	192.7
Knitted underwear		235.9	231.0	256.1	273.6	291.2	297.3	313.2	305.2	324.9	326.5	344.5	348.1	183.3
Dyeing and finishing textiles, including woolen and worsted		321.3	309.0	327.7	316.8	311.6	310.7	309.2	299.8	320.6	321.7	328.7	332.1	174.9
Carpets and rugs, wool		370.0	382.1	389.8	393.5	393.2	387.5	381.5	368.4	371.8	358.1	348.8	352.6	145.2
Hats, fur-felt		175.6	177.8	176.8	164.5	162.9	180.9	200.3	171.8	197.4	184.6	176.4	197.5	121.5
Jute goods, except felts		269.5	271.1	283.6	285.9	266.8	248.4	282.2	273.0	277.5	272.2	275.9	264.2	196.4
Cordage and twine		276.1	278.9	288.6	291.5	284.7	283.7	286.4	288.2	306.5	303.4	311.4	330.4	240.3
Apparel and other finished textile products <sup>1</sup>	344.7	345.8	327.2	329.2	336.8	325.0	348.1	342.3	303.6	303.6	297.9	306.5	343.2	185.2
Men's clothing, not elsewhere classified		286.0	269.6	271.9	276.0	280.5	301.1	300.3	272.6	290.0	288.6	293.7	300.8	174.9
Shirts, collars, and nightwear		211.9	192.9	211.5	234.5	231.8	230.0	223.7	221.9	234.0	241.4	248.4	252.9	143.6
Underwear and neckwear, men's		314.3	282.4	320.3	333.6	309.9	301.3	294.1	269.6	289.1	296.7	297.0	313.7	166.5
Work shirts		282.0	238.4	271.0	288.7	309.7	301.0	299.7	290.5	294.2	289.6	278.5	269.1	220.4
Women's clothing, not elsewhere classified		391.6	376.9	370.7	380.6	351.0	390.2	380.3	326.6	310.7	299.3	307.1	376.4	184.4
Corsets and allied garments		226.8	223.8	233.3	236.3	233.1	225.8	217.0	201.1	210.8	213.0	229.1	241.6	137.1
Millinery		205.6	162.9	148.4	121.6	169.2	177.7	172.5	144.7	115.5	111.9	149.9	185.9	123.3
Handkerchiefs		286.0	279.7	295.8	303.9	289.3	259.4	241.0	181.3	231.0	239.1	251.5	259.4	184.0
Curtains, draperies, and bedspreads		289.3	240.4	265.2	283.8	286.2	289.5	291.2	241.5	252.0	255.0	265.3	303.8	230.2
Housefurnishings, other than curtains, etc.		517.2	483.9	560.4	576.2	553.1	502.5	501.3	453.3	464.6	430.4	462.2	481.6	370.3
Textile bags		432.7	438.9	455.7	438.7	441.0	435.5	413.6	394.8	373.1	368.1	353.5	355.7	233.0
Leather and leather products <sup>1</sup>	239.6	239.4	235.0	234.3	224.4	236.8	245.1	248.3	236.5	233.4	215.4	227.1	251.7	154.2
Leather		202.2	204.6	210.9	202.0	206.3	206.5	207.3	203.6	205.2	201.1	197.9	206.4	140.6
Boot and shoe cut stock and findings		184.4	177.4	178.1	166.5	175.3	185.2	189.5	178.6	179.9	169.6	173.4	187.9	142.2
Boots and shoes		239.6	234.4	227.5	212.3	227.6	238.7	242.9	230.6	225.3	202.8	219.5	249.7	142.0
Leather gloves and mittens		201.1	194.2	209.9	259.4	266.8	274.5	285.4	267.4	273.6	256.9	241.3	252.8	239.4
Trunks and suitcases		277.6	256.3	343.2	417.5	401.4	393.3	376.2	339.5	339.5	339.8	347.2	364.1	240.3
Food <sup>1</sup>	302.7	302.9	312.1	333.5	340.7	358.2	389.8	351.3	352.2	328.3	281.3	267.4	285.8	180.9
Slaughtering and meat packing		307.8	343.8	365.6	336.2	305.4	303.5	296.0	318.8	329.2	226.4	192.5	295.8	188.6
Butter		367.6	369.3	380.9	379.0	384.7	397.8	418.5	432.6	429.8	407.2	381.0	348.2	231.0
Condensed and evaporated milk		428.0	416.1	407.4	424.4	435.6	473.7	492.5	509.9	520.3	477.9	438.1	403.0	268.5
Ice cream		280.0	265.7	270.4	273.9	291.2	333.5	348.4	365.8	341.5	311.3	286.4	261.3	170.6
Flour		332.1	362.5	346.6	351.9	355.2	360.7	368.6	368.3	339.9	314.6	304.7	292.2	182.9
Feeds, prepared		385.0	391.9	396.0	405.9	405.8	415.4	405.0	400.0	391.7	367.4	337.1	329.6	230.0
Cereal preparations		356.0	338.1	326.8	342.3	341.6	326.0	349.5	377.5	353.7	333.6	313.0	297.8	223.3
Baking		271.7	264.6	279.5	280.8	286.6	282.6	273.5	273.5	270.8	259.2	250.7	249.8	153.0
Sugar refining, cane		348.1	343.0	316.9	285.3	286.4	348.2	369.5	378.5	295.0	274.4	275.8	298.5	152.8
Sugar, beet		98.5	110.6	194.2	528.9	455.8	207.7	161.1	138.6	130.6	117.0	100.6	103.2	119.6
Confectionery		290.9	304.6	347.0	388.7	376.4	345.7	296.2	255.4	261.8	235.5	265.2	283.4	157.6
Beverages, nonalcoholic		277.0	276.1	284.7	287.1	298.6	340.9	349.0	387.1	342.6	311.6	289.9	270.7	163.2
Malt liquors		332.3	331.8	359.5	377.4	371.8	417.2	419.6	435.7	389.9	332.8	350.3	324.4	180.5
Canning and preserving		215.8	226.8	280.0	313.7	537.1	835.0	525.4	469.2	314.8	260.4	240.8	227.0	216.0
Tobacco manufactures <sup>1</sup>	198.8	193.5	200.5	217.9	223.5	224.3	214.8	218.3	205.5	205.8	201.3	205.7	204.6	151.0
Cigarettes		239.8	249.9	269.2	264.4	279.0	268.1	288.3	270.0	263.1	253.1	254.3	246.5	172.0
Cigars		169.2	174.8	192.1	207.4	197.2	187.4	180.9	171.1	175.8	175.1	182.7	186.6	141.0
Tobacco (chewing and smoking) and snuff		161.4	166.3	178.5	173.1	180.7	176.1	173.3	164.1	166.7	161.8	161.6	159.6	132.3
Paper and allied products <sup>1</sup>	327.6	335.3	341.9	356.5	362.2	357.4	355.0	352.1	341.7	337.8	331.1	325.7	330.8	184.8
Paper and pulp		341.0	348.6	357.9	364.7	359.1	362.9	363.6	357.7	347.7	343.2	333.3	335.6	181.6
Paper goods, other		380.5	381.2	394.7	392.8	381.2	372.3	365.1	355.3	358.4	355.0	350.7	354.2	193.2
Envelopes		297.8	302.8	317.5	317.3	307.0	298.3	290.0	272.9	284.0	283.3	282.1	283.7	165.7
Paper bags		357.0	355.4	364.5	365.3	391.4	390.2	392.7	380.0	364.4	355.4	365.3	373.7	183.4
Paper boxes		296.5	305.6	335.3	344.5	342.1	328.0	318.6	294.9	304.8	290.4	292.5	305.4	189.6
Printing, publishing, and allied industries <sup>1</sup>	273.9	269.7	268.8	280.6	275.4	273.6	273.6	264.8	260.1	264.9	262.2	259.5	258.5	124.7
Newspapers and periodicals		247.8	242.7	258.9	253.3	252.2	253.6	240.6	235.5	238.1	236.5	234.6	229.2	111.7
Printing: book and job		307.0	309.4	316.0	307.9	305.4	304.8	297.6	296.0	299.3	296.7	291.0	292.5	137.3
Lithographing		216.3	218.6	233.3	234.5	235.5	233.1	231.8	223.5	230.3	224.1	221.4	227.2	124.9
Bookbinding		296.4	305.4	310.6	315.1	309.7	307.8	310.2	291.8	310.0	302.9	304.0	313.4	174.8

See footnotes at end of table.



TABLE A-8: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries<sup>1</sup>—Con.

[1939 average=100]

Industry group and industry	1949					1948								Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
<b>Nondurable goods—Continued</b>														
Chemicals and allied products <sup>2</sup> .....	449.0	454.2	459.1	462.3	461.9	460.1	462.5	450.6	432.7	434.9	422.5	422.1	425.1	422.5
Paints, varnishes, and colors.....	315.5	317.2	325.5	329.9	338.4	339.3	345.1	343.0	335.6	329.9	315.9	319.1	319.1	197.2
Drugs, medicines, and insecticides.....	535.8	534.6	514.4	514.9	506.9	491.1	485.3	480.6	486.7	481.5	479.9	487.6	487.6	286.3
Perfumes and cosmetics.....	223.2	230.3	247.4	261.9	252.2	243.0	237.4	204.3	213.7	209.7	215.1	222.0	215.1	180.6
Soap.....	385.5	385.0	404.1	405.3	412.2	400.7	365.7	344.3	343.1	322.9	321.8	359.0	359.0	174.5
Rayon and allied products.....	304.0	304.5	305.3	300.1	296.7	297.5	302.7	289.6	280.2	275.1	274.6	271.9	271.9	168.2
Chemicals, not elsewhere classified.....	621.6	639.3	639.7	637.5	628.6	641.6	629.1	600.4	613.6	589.6	591.1	584.3	584.3	336.9
Explosives and safety fuses.....	729.7	707.6	746.9	749.1	763.8	796.0	798.3	760.2	737.6	683.8	648.3	675.2	675.2	2,361.8
Compressed and liquefied gases.....	493.1	487.7	483.8	491.0	488.5	513.9	512.0	518.2	505.4	491.7	483.7	473.6	473.6	325.3
Ammunition, small-arms.....	385.3	380.6	395.2	403.7	409.4	411.2	403.1	420.8	411.2	404.1	398.8	396.8	396.8	6,734.4
Fireworks.....	559.9	587.4	541.4	544.2	552.7	621.0	630.2	507.0	572.5	594.9	572.5	625.8	625.8	5,963.9
Cottonseed oil.....	414.6	475.6	539.9	555.4	559.8	459.3	261.7	230.1	228.3	245.9	270.2	316.4	316.4	230.4
Fertilizers.....	503.0	449.8	427.5	415.3	430.8	436.1	408.9	396.7	414.5	470.4	530.1	540.2	540.2	272.2
Products of petroleum and coal <sup>3</sup> .....	339.4	339.2	349.6	345.5	354.9	344.8	345.6	358.2	353.4	342.2	335.8	316.7	320.0	184.3
Petroleum refining.....	334.2	346.4	338.2	343.9	324.7	326.1	345.5	344.9	330.8	326.2	310.9	306.6	306.6	176.7
Coke and byproducts.....	351.0	358.4	350.7	346.7	349.5	353.2	350.8	329.5	330.1	320.6	287.3	314.6	314.6	183.4
Paving materials.....	191.3	185.8	239.5	*240.2	276.3	279.1	264.3	248.1	235.0	222.8	206.5	173.1	144.8	144.8
Roofing materials.....	373.1	368.5	413.2	507.0	577.7	558.3	548.7	531.9	523.3	508.5	495.6	502.7	502.7	267.2
Rubber products <sup>4</sup> .....	297.8	309.8	320.6	332.7	341.9	345.5	344.9	347.2	329.7	330.2	318.9	312.8	320.6	263.9
Rubber tires and inner tubes.....	288.8	294.5	299.6	312.9	318.2	326.2	341.0	329.8	322.0	305.7	286.4	292.4	292.4	265.7
Rubber boots and shoes.....	301.5	351.1	388.2	377.2	369.0	355.9	344.1	321.7	329.7	328.1	333.9	347.0	347.0	268.8
Rubber goods, other.....	346.8	353.9	370.0	378.7	383.0	370.8	356.3	331.9	343.7	337.7	347.1	356.2	356.2	265.8
Miscellaneous industries <sup>5</sup> .....	378.2	381.4	384.2	406.8	420.8	422.6	411.8	397.4	375.0	386.7	384.2	382.6	394.0	322.7
Instruments (professional and scientific), and fire-control equipment.....	596.3	588.1	578.6	576.9	555.5	530.1	505.9	487.2	491.0	492.6	494.2	489.3	489.3	1,356.9
Photographic apparatus.....	432.1	440.7	455.1	455.4	450.2	450.5	444.1	443.8	438.8	409.7	416.2	422.3	422.3	311.5
Optical instruments and ophthalmic goods.....	452.5	452.9	455.7	447.8	451.9	444.4	439.6	393.1	421.6	426.7	438.1	444.8	444.8	439.0
Pianos, organs, and parts.....	329.1	341.3	381.2	389.5	387.6	369.1	361.7	327.9	362.7	367.8	367.9	396.0	396.0	295.1
Games, toys, and dolls.....	429.4	410.2	501.4	633.2	651.1	613.5	566.8	521.2	510.6	496.7	487.6	463.7	463.7	169.7
Buttons.....	263.0	267.4	281.7	273.6	275.4	271.9	275.3	254.0	271.7	269.4	269.4	284.3	284.3	204.1
Fire extinguishers.....	515.5	601.7	635.1	638.1	616.9	606.1	566.7	573.0	595.6	563.4	575.5	541.0	541.0	1,622.9

<sup>1</sup> See footnotes 1 and 2, table A-6.TABLE A-9: Estimated Number of Employees in Selected Nonmanufacturing Industries<sup>1</sup>

[In thousands]

Industry group and industry	1949					1948								Annual average	
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943	1939
<b>Mining:<sup>2</sup></b>															
Coal:															
Anthracite.....	75.3	76.2	77.2	77.0	77.0	76.6	77.5	77.7	76.2	77.4	76.4	76.9	77.4	78.4	83.6
Bituminous.....	392	399	401	405	403	404	408	408	378	407	405	296	401	419	372
Metal.....	94.1	92.8	89.8	90.1	88.5	92.0	89.4	88.4	91.7	92.8	91.4	91.7	91.4	112.7	92.6
Iron.....	32.1	32.0	32.0	32.3	32.1	32.8	33.4	33.7	33.7	32.7	32.5	31.5	31.5	35.3	21.1
Copper.....	27.8	26.7	24.2	24.4	23.9	27.0	26.9	26.5	26.6	26.7	26.5	26.8	26.9	33.3	25.0
Lead and zinc.....	17.1	16.9	16.9	16.9	16.6	16.2	13.0	12.0	15.0	16.2	16.4	16.3	16.3	21.6	16.3
Gold and silver.....	9.2	9.2	8.9	8.7	8.2	8.1	8.2	8.1	8.4	8.3	8.1	8.5	8.7	7.7	26.0
Miscellaneous.....	7.9	8.0	7.9	7.9	7.7	7.9	7.9	8.0	8.0	7.9	7.7	7.7	7.9	14.8	4.2
Quarrying and nonmetallic.....	78.2	76.6	77.5	83.4	85.3	86.6	87.8	87.8	87.1	86.8	85.1	83.9	80.0	80.9	68.5
Crude petroleum and natural gas production <sup>3</sup> .....	129.2	129.6	129.5	129.6	130.4	129.9	133.2	137.1	136.6	133.5	128.7	127.2	127.1	103.2	114.4
<b>Transportation and public utilities:</b>															
Class I railroads <sup>4</sup> .....	1,195	1,232	1,256	1,306	1,329	1,345	1,350	1,356	1,361	1,352	1,321	1,258	1,316	1,355	988
Street railways and busses <sup>5</sup> .....	242	242	243	244	245	246	248	248	246	249	249	249	249	227	194
Telephone.....	637	640	638	642	642	642	643	647	644	633	630	630	627	402	318
Telegraph <sup>6</sup> .....	32.4	32.8	33.3	33.9	34.2	34.5	34.7	35.1	36.0	36.1	36.3	36.9	36.9	46.9	37.6
Electric light and power.....	283	282	281	282	282	281	284	286	283	279	274	273	271	211	244
<b>Service:</b>															
Hotels (year-round).....	361	364	366	370	372	375	373	369	375	379	377	377	375	344	323
Power laundries <sup>7</sup> .....	216	217	221	224	224	229	232	233	239	238	233	232	231	252	196
Cleaning and dyeing <sup>8</sup> .....	84.1	83.3	84.5	86.3	87.5	89.4	88.7	89.7	92.6	94.7	93.4	92.5	90.0	78.0	58.2

<sup>1</sup> Unless otherwise noted, data include all employees. Data for the three most recent months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.<sup>2</sup> Includes production and related workers only.<sup>3</sup> Estimates have been adjusted to levels indicated by Federal Security Agency data through 1946 and have been carried forward from 1946 benchmark levels, thereby providing consistent series.<sup>4</sup> Does not include well drilling or rig building.<sup>5</sup> Includes all employees at middle of month. Excludes employees of switching and terminal companies. Class I railroads include those with over \$1,000,000 annual revenue. Source: Interstate Commerce Commission.<sup>6</sup> Includes private and municipal street-railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.<sup>7</sup> Includes all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

TABLE A-10: Indexes of Employment in Selected Nonmanufacturing Industries <sup>1</sup>

[1939 average=100]

Industry group and industry	1949			1948										Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
<b>Mining: <sup>1</sup></b>														
Coal:														
Anthracite.....	90.1	91.1	92.3	92.0	92.1	91.7	92.7	92.9	91.1	92.6	91.4	91.9	92.6	93.7
Bituminous.....	105.4	107.3	107.9	109.0	108.3	108.8	109.7	109.7	101.8	109.6	108.9	79.7	108.0	112.6
<b>Metal:</b>	101.6	100.2	97.0	97.3	95.6	99.3	96.5	95.5	99.1	100.2	98.7	99.0	98.7	121.7
Iron.....	152.1	151.7	151.4	152.7	152.1	155.4	158.2	159.6	159.5	159.6	155.0	153.7	149.4	167.4
Copper.....	111.4	106.8	96.7	97.7	95.6	107.9	107.7	106.0	106.6	106.9	106.0	107.2	107.9	133.2
Lead and zinc.....	104.8	103.7	103.5	103.6	101.9	99.8	79.8	74.0	92.2	99.7	100.6	100.4	100.2	132.7
Gold and silver.....	35.3	35.2	34.3	33.6	31.6	30.9	31.4	31.1	32.2	31.9	31.3	32.5	33.3	29.7
Miscellaneous.....	188.5	191.7	188.0	189.4	183.2	188.6	188.9	190.0	191.3	188.6	182.9	182.8	189.1	352.0
Quarrying and nonmetallic.....	114.2	111.9	113.2	121.8	124.6	126.5	128.3	128.2	127.3	126.8	124.2	122.5	116.8	118.2
Crude petroleum and natural gas production <sup>2</sup> .....	112.9	113.2	113.2	113.2	114.0	113.5	116.4	119.8	119.4	116.7	112.5	111.2	111.1	90.2
<b>Transportation and public utilities:</b>														
Class I railroads <sup>3</sup> .....	121.0	124.7	127.2	132.2	134.6	136.2	136.7	137.3	137.9	136.9	133.8	127.3	133.3	137.2
Street railways and busses <sup>4</sup> .....	127.4	125.1	125.4	125.9	126.2	126.9	127.9	128.1	127.2	128.3	128.5	128.3	128.3	117.0
Telephone.....	200.5	201.6	200.8	202.2	202.1	201.9	202.3	203.7	202.8	199.4	198.4	198.3	197.4	126.7
Telegraph <sup>5</sup> .....	86.0	87.1	88.6	90.0	90.7	91.6	92.3	93.3	95.7	96.0	96.3	97.9	98.2	124.7
Electric light and power.....	115.7	115.6	115.1	115.6	115.5	115.1	116.2	117.1	115.8	114.1	112.3	111.7	110.9	86.3
<b>Trade: <sup>6</sup></b>														
Wholesale.....	114.5	114.9	115.0	117.8	118.3	118.1	117.1	117.0	116.2	115.3	114.5	114.8	115.3	95.9
Retail.....	109.3	109.1	111.7	129.0	119.4	116.0	113.4	111.2	112.0	113.6	113.1	112.8	113.8	99.9
Food.....	112.7	111.8	111.6	114.6	113.8	113.8	112.0	112.3	113.8	115.5	116.3	116.1	116.7	106.2
General merchandise.....	119.0	118.7	126.0	177.1	146.4	135.3	127.2	120.8	121.3	124.8	123.7	123.4	124.5	116.9
Apparel.....	108.8	106.3	110.9	135.0	122.5	119.4	113.9	105.1	108.0	115.4	115.2	114.6	116.8	110.1
Furniture and housefurnishings.....	89.8	90.1	91.1	97.5	93.8	92.2	91.6	90.1	90.5	91.2	91.9	91.6	91.9	67.7
Automotive.....	107.1	107.3	108.9	113.7	111.7	110.0	110.1	111.1	109.8	108.4	107.0	107.1	105.8	63.0
Lumber and building materials.....	114.0	115.0	117.6	123.9	126.6	127.8	128.0	129.6	128.2	126.3	123.7	121.9	119.4	91.5
<b>Service:</b>														
Hotels (year-round).....	111.9	112.9	113.4	114.6	115.3	116.2	115.7	114.6	116.2	117.6	117.0	116.9	116.4	106.6
Power laundries <sup>7</sup> .....	110.1	110.8	113.1	114.2	114.6	116.7	118.4	119.0	122.1	121.5	119.0	118.3	117.7	128.7
Cleaning and dyeing <sup>8</sup> .....	144.5	143.3	145.3	148.4	150.5	153.7	152.5	154.3	159.2	162.9	160.6	159.0	154.8	134.0

<sup>1</sup> See footnote 1, table A-9.<sup>2</sup> See footnote 2, table A-9.<sup>3</sup> See footnote 3, table A-9.<sup>4</sup> See footnote 4, table A-9.<sup>5</sup> See footnote 5, table A-9.<sup>6</sup> See footnote 6, table A-9.<sup>7</sup> See footnote 7, table A-9.<sup>8</sup> See footnote 8, table A-9.<sup>9</sup> Includes all nonsupervisory employees and working supervisors.TABLE A-11: Indexes of Weekly Pay Rolls in Selected Nonmanufacturing Industries <sup>1</sup>

[1939 average=100]

Industry group and industry	1949			1948										Annual average
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	1943
<b>Mining: <sup>1</sup></b>														
Coal:														
Anthracite.....	160.1	168.8	238.6	224.6	216.0	260.4	247.3	260.3	193.3	246.0	246.2	195.4	255.9	146.1
Bituminous.....	311.7	350.1	355.3	355.0	343.1	358.5	355.1	365.8	293.0	344.2	344.3	167.4	342.0	203.3
<b>Metal:</b>	237.4	228.6	225.1	224.4	215.3	224.9	211.2	210.4	202.2	208.2	206.1	201.7	201.3	184.9
Iron.....	308.2	364.7	363.1	358.0	353.2	371.6	361.0	355.8	331.5	345.0	336.3	319.7	313.8	257.9
Copper.....	277.3	252.9	241.2	244.4	232.2	255.6	247.6	254.8	242.4	232.9	232.6	232.6	234.8	214.6
Lead and zinc.....	285.7	272.2	278.0	277.8	265.4	282.7	199.2	189.1	193.2	238.1	238.9	235.8	232.8	226.7
Gold and silver.....	64.3	66.6	61.9	62.4	56.6	56.4	54.1	56.1	57.1	54.2	54.6	55.2	56.7	37.2
Miscellaneous.....	396.0	398.1	412.3	408.2	374.1	388.7	382.4	387.5	383.0	360.7	352.5	343.1	349.2	500.7
Quarrying and nonmetallic.....	286.8	281.2	288.1	321.2	329.5	345.2	342.4	348.5	329.7	329.1	312.5	295.4	272.7	199.6
Crude petroleum and natural gas production <sup>2</sup> .....	233.1	236.7	245.1	235.7	235.3	230.7	235.6	251.0	240.8	227.1	223.4	213.4	208.3	128.0
<b>Transportation and public utilities:</b>														
Class I railroads.....	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Street railways and busses <sup>3</sup> .....	228.7	230.6	231.3	233.4	231.2	235.7	233.4	235.2	232.2	231.2	228.1	227.1	232.6	155.7
Telephone.....	344.9	346.2	337.2	339.7	349.7	338.8	335.4	331.7	336.1	327.1	326.1	317.7	314.7	144.9
Telegraph <sup>4</sup> .....	206.8	206.6	210.9	212.6	215.3	217.4	220.4	225.5	233.2	228.5	231.1	224.8	213.0	159.3
Electric light and power.....	206.0	206.2	206.7	206.4	205.8	204.5	204.3	204.9	202.8	196.4	192.1	188.6	184.4	109.2
<b>Trade: <sup>5</sup></b>														
Wholesale.....	217.4	219.3	222.7	224.0	224.2	222.5	220.8	220.6	215.3	211.8	211.8	211.0	210.8	127.0
Retail.....	214.5	214.4	222.6	251.4	228.4	223.5	219.4	218.1	218.6	218.3	213.8	211.1	210.4	120.6
Food.....	233.3	232.4	231.9	234.8	229.7	227.4	226.0	229.0	232.9	231.9	227.0	225.5	226.1	129.2
General merchandise.....	227.5	225.0	248.3	340.8	270.3	282.7	238.3	231.8	233.6	236.5	229.2	225.8	225.5	135.9
Apparel.....	200.0	196.7	211.9	254.7	226.9	222.2	210.8	195.5	202.1	214.3	211.8	209.2	208.8	133.9
Furniture and housefurnishings.....	177.1	180.3	186.8	201.1	182.5	184.3	179.9	178.5	176.7	179.6	180.3	175.6	173.7	86.5
Automotive.....	212.7	210.4	216.5	224.7	219.0	215.6	217.0	219.6	213.4	209.6	205.3	204.7	197.5	84.7
Lumber and building materials.....	232.1	234.4	239.8	251.0	254.7	261.3	258.3	264.6	257.3	252.8	242.6	234.9	228.6	120.7
<b>Service:</b>														
Hotels (year-round) <sup>6</sup> .....	233.0	235.9	236.3	238.6	237.9	238.7	235.3	233.7	234.4	236.3	234.6	233.4	229.0	138.7
Power laundries <sup>7</sup> .....	219.1	219.8	228.5	227.6	226.8	227.6	232.9	228.1	240.6	238.3	232.3	231.5	227.5	167.0
Cleaning and dyeing <sup>8</sup> .....	278.9	271.1	284.3	291.3	289.3	300.0	296.8	287.2	308.0	324.8	312.4	308.0	291.2	185.4

<sup>1</sup> See footnote 1, table A-9.<sup>2</sup> See footnote 2, table A-9.<sup>3</sup> See footnote 3, table A-9.<sup>4</sup> See footnote 4, table A-9.<sup>5</sup> Not available.<sup>6</sup> See footnote 6, table A-9.<sup>7</sup> See footnote 7, table A-9.<sup>8</sup> See footnote 8, table A-10.<sup>9</sup> Money payments only; additional value of board, room, uniforms, and tips, not included.



TABLE A-12: Federal Civilian Employment by Branch and Agency Group <sup>1</sup>

Year and month	All branches	Executive <sup>2</sup>				Legislative	Judicial	Government corporations <sup>3</sup>
		Total	Defense agencies <sup>4</sup>	Post Office Department <sup>5</sup>	All other agencies			
Total (including areas outside continental United States)								
1939.....	968,596	935,493	207,979	319,474	408,040	5,373	2,260	25,470
1943.....	3,183,235	3,138,838	2,304,752	364,092	469,994	6,171	2,636	35,590
1948: March.....	*1,996,223	*1,956,424	*897,834	431,691	626,899	7,217	3,462	29,120
April.....	*2,009,998	*1,970,371	*903,623	438,824	627,924	7,186	3,461	28,980
May.....	*2,026,041	*1,986,428	*910,125	442,661	633,642	7,257	3,468	28,888
June.....	*2,038,187	*1,998,790	*916,857	442,588	639,345	7,308	3,459	28,630
July.....	2,065,672	2,026,086	919,784	452,932	653,370	7,305	3,477	28,804
August.....	2,073,720	2,034,538	924,555	455,549	654,434	7,341	3,495	28,346
September.....	2,083,614	2,044,087	933,214	457,003	653,870	7,377	3,485	28,665
October.....	2,076,011	2,036,951	931,918	458,414	646,619	7,355	3,500	28,205
November.....	2,078,623	2,039,218	934,509	459,685	645,024	7,443	3,537	28,425
December.....	2,380,186	2,340,902	937,178	759,268	644,456	7,343	3,512	28,429
1949: January.....	2,089,545	2,050,385	933,670	475,836	640,879	7,414	3,538	*28,208
February.....	2,089,040	2,049,809	935,216	475,022	639,570	7,420	3,552	*28,260
March.....	2,089,806	2,050,601	934,433	474,945	641,223	7,482	3,558	28,165
Continental United States								
1939.....	926,659	897,602	179,381	318,802	399,419	5,373	2,180	21,504
1943.....	2,913,534	2,875,928	2,057,696	363,297	454,935	6,171	2,546	28,889
1948: March.....	1,770,672	1,738,043	708,934	430,116	598,993	7,217	3,388	22,024
April.....	1,781,238	1,748,658	710,991	437,242	600,425	7,186	3,387	22,007
May.....	1,795,611	1,763,092	717,072	441,076	604,944	7,257	3,394	21,858
June.....	1,808,240	1,775,838	724,683	440,977	610,178	7,308	3,388	21,706
July.....	1,839,560	1,806,926	732,217	451,339	623,370	7,305	3,406	21,923
August.....	1,854,242	1,821,574	742,925	453,926	624,723	7,341	3,424	21,903
September.....	1,868,589	1,836,008	756,500	455,372	624,136	7,377	3,409	21,795
October.....	1,868,846	1,836,310	762,682	456,708	616,920	7,355	3,426	21,755
November.....	1,876,443	1,843,888	770,286	457,972	615,630	7,443	3,462	21,650
December.....	2,181,744	2,149,306	777,474	756,549	615,283	7,343	3,437	21,658
1949: January.....	1,895,969	1,863,573	777,679	474,100	611,794	7,414	3,463	21,519
February.....	1,897,665	1,865,217	781,956	473,289	609,972	7,420	3,476	21,552
March.....	1,897,224	1,864,685	780,782	473,215	610,688	7,482	3,481	21,576

<sup>1</sup> Employment represents an average for the year or is as of the first of the month. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) Exclude seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission, included by Civil Service Commission starting January 1947; (2) exclude substitute rural mail carriers, included by the Civil Service Commission since September 1945; (3) include in December the additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (4) include an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (5) the Panama R. R. Co. is shown under Government corporations here, but is included under the executive branch by the Civil Service Commission; (6) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

Data for Central Intelligence Agency are excluded.

<sup>2</sup> From 1939 through June 1943, employment was reported for all areas monthly and employment within continental United States was secured by deducting the number of persons outside the continental area, which was estimated from actual reports as of January 1939 and 1940 and of July 1941

and 1943. From July 1943, through December 1946, employment within continental United States was reported monthly and the number of persons outside the country (estimated from quarterly reports) was added to secure employment in all areas. Beginning January 1947, employment is reported monthly both inside and outside continental United States.

<sup>3</sup> Data for current months cover the following corporations: Federal Reserve banks, mixed ownership banks of the Farm Credit Administration, and the Panama R. R. Co. Data for earlier years include at various times the following additional corporations: Inland Waterways Corporation, Spruce Production Corporation, and certain employees of the Federal Deposit Insurance Corporation and of the Office of the Comptroller of the Currency, Treasury Department. Corporations not included in this column are under the executive branch.

<sup>4</sup> Covers the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

<sup>5</sup> For ways in which data differ from published figures of the Civil Service Commission, see footnote 1. Employment figures include fourth-class postmasters in all months. Prior to July 1945, clerks at third-class post offices were hired on a contract basis and therefore, because of being private employees, are excluded here. They are included beginning July 1945, however, when they were placed on the regular Federal pay roll by congressional action.

\*Revised.

TABLE A-13: Federal Civilian Pay Rolls by Branch and Agency Group<sup>1</sup>

[In thousands]

Year and month	All branches	Executive <sup>1</sup>				Legislative	Judicial	Government corporations <sup>3</sup>
		Total	Defense agencies <sup>4</sup>	Post Office Department <sup>5</sup>	All other agencies			
Total (including areas outside continental United States)								
1939.....	\$1,757,292	\$1,692,824	\$357,628	\$586,347	\$748,849	\$14,767	\$6,691	\$43,010
1944 <sup>6</sup> .....	8,301,111	8,206,411	6,178,387	864,947	1,163,077	18,127	9,274	67,299
1948: March.....	498,325	488,676	218,706	102,124	167,846	2,499	1,343	5,807
April.....	477,620	468,100	204,606	100,804	162,690	2,482	1,322	5,716
May.....	474,725	465,356	205,912	100,925	158,519	2,469	1,207	5,693
June.....	505,345	495,792	225,440	102,653	167,699	2,536	1,279	5,738
July.....	528,447	518,639	223,968	121,677	172,994	2,600	1,301	5,907
August.....	543,443	533,523	229,236	122,320	181,967	2,695	1,390	5,835
September.....	547,847	537,969	232,975	121,908	183,086	2,694	1,453	5,731
October.....	533,871	523,860	225,675	124,095	174,090	2,656	1,454	5,901
November.....	550,353	540,393	235,507	125,130	179,756	2,682	1,419	5,859
December.....	624,586	614,399	245,159	178,899	190,341	2,722	1,468	5,997
1949: January.....	537,916	527,868	230,653	121,598	175,617	2,657	1,352	6,039
February.....	518,356	508,534	220,851	119,978	167,705	2,650	1,306	5,866
March.....	578,296	568,035	253,767	120,212	194,046	2,763	1,455	6,053
Continental United States								
1944 <sup>6</sup> .....	\$7,628,017	\$7,540,825	\$5,553,166	\$862,271	\$1,125,388	\$18,127	\$8,878	\$60,187
1948: March.....	456,878	447,901	185,284	101,765	160,852	2,499	1,305	5,173
April.....	439,691	430,845	174,409	100,543	155,893	2,482	1,287	5,077
May.....	434,657	426,011	174,209	100,570	151,232	2,469	1,174	5,003
June.....	461,406	452,529	189,974	102,306	160,249	2,536	1,242	5,099
July.....	487,067	478,016	191,686	121,263	165,067	2,600	1,263	5,188
August.....	501,815	492,593	197,058	121,906	173,629	2,695	1,351	5,176
September.....	506,309	497,084	200,912	121,479	174,693	2,694	1,414	5,117
October.....	491,324	482,045	192,530	123,633	165,882	2,656	1,413	5,210
November.....	509,114	499,801	203,323	124,667	171,811	2,682	1,379	5,250
December.....	581,370	571,845	211,614	178,151	182,080	2,722	1,428	5,375
1949: January.....	498,625	489,363	200,204	121,154	168,005	2,657	1,314	5,291
February.....	481,266	472,094	192,503	119,540	160,051	2,650	1,268	5,254
March.....	535,848	526,315	221,398	119,766	185,151	2,763	1,414	5,356

<sup>1</sup> Data are from a series revised June 1947 to adjust pay rolls, which from July 1945 until December 1946 were reported for pay periods ending during the month, to cover the entire calendar month. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for Central Intelligence Agency are excluded.

<sup>2</sup> From 1939 through May 1943, pay rolls were reported for all areas monthly. Beginning June 1943, some agencies reported pay rolls for all areas and some reported pay rolls for the continental area only. Pay rolls for areas outside continental United States from June 1943 through November 1946 (except for the National Military Establishment for which these data were reported monthly during most of this period) were secured by multiplying employment in these areas (see footnote 2, table A-12, for derivation of the employ-

ment) by the average pay per person in March 1944, as revealed in a survey as of that date, adjusted for the salary increases given in July 1945 and July 1946. Beginning December 1946 pay rolls for areas outside the country are reported monthly by most agencies.

<sup>3</sup> See footnote 3, table A-12.

<sup>4</sup> See footnote 4, table A-12.

<sup>5</sup> Beginning July 1945, pay is included of clerks at third-class post offices who previously were hired on a contract basis and therefore were private employees and of fourth-class postmasters who previously were recompensed by the retention of a part of the postal receipts. Both these groups were placed on a regular salary basis in July 1945 by congressional action.

<sup>6</sup> Data are shown for 1944, instead of 1943 as in the other Federal tables, because pay rolls for employment in areas outside continental United States are not available prior to June 1943.

\* Revised



TABLE A-14: Civilian Government Employment and Pay Rolls in Washington, D. C., by Branch and Agency Group<sup>1</sup>

Year and month	Total government	District of Columbia government	Federal						
			Total	Executive				Legislative	Judicial
				All agencies	Defense agencies <sup>2</sup>	Post Office Department <sup>3</sup>	All other agencies		
Employment <sup>4</sup>									
1939.....	143,548	13,978	129,570	123,773	18,761	5,099	99,913	5,373	424
1943.....	300,914	15,874	285,040	278,363	144,319	8,273	125,771	6,171	506
1948: March.....	226,256	18,668	207,588	199,784	66,050	7,412	126,322	7,217	587
April.....	227,627	18,626	209,001	201,227	66,635	7,396	127,196	7,186	588
May.....	228,877	18,682	210,195	202,350	67,212	7,380	127,758	7,257	588
June.....	229,526	18,848	210,678	202,782	67,592	7,387	127,803	7,308	588
July.....	233,308	19,294	214,014	206,110	69,056	7,499	129,555	7,305	599
August.....	234,253	18,882	215,371	207,438	70,217	7,486	129,735	7,341	592
September.....	235,063	18,853	216,210	208,245	70,771	7,551	129,923	7,377	588
October.....	234,544	18,564	215,980	208,036	70,666	7,589	129,781	7,355	589
November.....	236,478	19,065	217,413	209,373	71,084	7,702	130,587	7,443	597
December.....	242,659	18,764	223,895	215,955	72,219	12,015	131,721	7,343	597
1949: January.....	237,526	18,880	218,646	210,629	71,202	7,623	131,804	7,414	603
February.....	238,909	19,062	219,847	211,823	71,723	7,613	132,487	7,420	604
March.....	239,859	19,056	*220,803	212,719	71,991	7,625	133,103	7,482	602
Pay rolls (in thousands)									
1939.....	\$305,741	\$25,226	\$280,515	\$264,541	\$37,825	\$12,524	\$214,192	\$14,765	\$1,209
1943.....	737,792	32,884	704,908	685,510	352,007	20,070	313,433	17,785	1,613
1948: March.....	65,336	4,518	60,818	58,104	17,900	2,340	37,864	2,499	215
April.....	62,987	4,495	58,492	55,799	16,324	2,277	37,198	2,482	211
May.....	63,492	4,422	59,070	56,400	18,045	2,234	36,121	2,469	201
June.....	66,658	4,561	62,097	59,350	19,250	2,300	37,800	2,536	211
July.....	67,208	3,461	63,747	60,931	20,235	2,651	38,045	2,600	216
August.....	71,251	3,480	67,771	64,848	21,114	2,695	41,039	2,695	228
September.....	73,551	4,607	68,944	66,020	22,141	2,722	41,157	2,694	230
October.....	70,755	4,450	66,305	63,421	20,908	2,684	39,829	2,656	228
November.....	73,223	4,528	68,695	65,782	21,656	2,750	41,376	2,682	231
December.....	*78,680	*4,742	73,938	70,972	22,526	3,704	44,742	2,722	244
1949: January.....	*71,434	*4,647	66,787	63,904	20,687	2,132	41,085	2,657	226
February.....	68,631	4,418	64,213	61,345	20,046	2,070	39,229	2,650	218
March.....	78,371	4,790	73,581	70,574	23,112	2,100	45,362	2,793	244

<sup>1</sup> Data for the legislative and judicial branches and District of Columbia Government are reported to the Bureau of Labor Statistics. Data for the executive branch are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) include in December the temporary additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (2) include an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (3) exclude persons working without compensation or for \$1 a year or month, included by the Civil Service Commission from June through November 1943; (4) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

Beginning January 1942, data for the executive branch cover, in addition to the area inside the District of Columbia, the adjacent sections of Maryland

and Virginia which are defined by the Bureau of the Census as in the metropolitan area. Data for Central Intelligence Agency are excluded.

<sup>2</sup> Covers the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

<sup>3</sup> For ways in which data differ from published figures of the Civil Service Commission, see footnote 1.

<sup>4</sup> Yearly figures represent averages. Monthly figures represent (1) the number of regular employees in pay status on the first day of the month plus the number of intermittent employees who were paid during the preceding month for the executive branch, (2) the number of employees on the pay roll with pay during the pay period ending just before the first of the month for the legislative and judicial branches, and (3) the number of employees on the pay roll with pay during the pay period ending on or just before the last of the month for the District of Columbia Government.

\*Revised.

TABLE A-15: Personnel and Pay in Military Branch of Federal Government <sup>1</sup>  
[In thousands]

Year and month	Personnel (average for year or as of first of month) <sup>2</sup>						Type of pay				
	Total	Army <sup>3</sup>	Air Force	Navy	Marine Corps	Coast Guard	Total	Pay rolls <sup>4</sup>	Mustering-out pay <sup>5</sup>	Family allowances <sup>6</sup>	Leave payments <sup>7</sup>
1939	345	* 192	( <sup>8</sup> )	124	19	10	\$331,523	\$331,523			
1943	8,944	* 6,733	( <sup>8</sup> )	1,744	311	156	11,181,079	10,148,745		\$1,032,334	
1948: March	1,423	544	365	413	80	20	285,011	242,969	\$13,051	24,997	\$3,995
April	1,417	538	368	412	79	20	285,210	247,452	9,751	25,414	2,593
May	1,420	541	375	403	80	20	278,967	242,292	9,057	25,736	1,882
June	1,439	546	384	407	82	20	277,368	243,239	5,756	26,476	1,898
July	1,463	552	388	420	84	20	276,590	246,422	2,516	26,353	1,290
August	1,514	579	400	430	86	21	278,234	244,547	3,955	27,756	1,978
September	1,548	609	401	432	86	21	292,040	251,398	9,292	28,115	3,235
October	1,585	636	406	438	84	21	294,843	259,175	5,818	28,253	1,598
November	1,610	646	410	446	85	21	298,971	264,137	5,733	28,534	667
December	1,628	662	410	449	85	22	294,061	260,046	5,221	28,605	190
1949: January	1,644	677	412	447	86	22	299,593	265,618	5,023	28,709	243
February	1,687	712	416	450	87	22	290,041	257,503	4,292	28,163	85
March	1,681	703	417	451	87	22	289,043	255,340	4,511	29,108	84

<sup>1</sup> Except for Army personnel for 1939 which is from the Annual Report of the Secretary of War, all data are from reports submitted to the Bureau of Labor Statistics by the various military branches. Because of rounding, totals will not necessarily add to the sum of the items shown.

<sup>2</sup> Includes personnel on active duty, the missing, those in the hands of the enemy, and those on terminal leave through October 1, 1947, when lump-sum terminal-leave payments at time of discharge were started.

<sup>3</sup> Prior to March 1944, data include persons on induction furlough. Prior to June 1942 and after April 1945, Philippine Scouts are included.

<sup>4</sup> Pay rolls are for personnel on active duty; they include payment of personnel while on terminal leave through September 1947. For officers this applies to all prior periods and for enlisted personnel back to October 1, 1946 only. Beginning October 1, 1947, they include lump-sum terminal-leave payments made at time of discharge. Coast Guard pay rolls for all periods and Army pay rolls through April 1947 represent actual expenditures. Other data represent estimated obligations based on an average monthly personnel

count. Pay rolls for the Navy and Coast Guard include cash payments for clothing-allowance balances in January, April, July, and October.

<sup>5</sup> Represents actual expenditures.

<sup>6</sup> Represents Government's contribution. The men's share is included in the pay rolls.

<sup>7</sup> Leave payments were authorized by Public Law 704 of the 79th Congress and were continued by Public Law 254 of the 80th Congress to enlisted personnel discharged prior to September 1, 1946, for accrued and unused leave, and to officers and enlisted personnel then on active duty for leave accrued in excess of 60 days. Value of bonds (representing face value, to which interest is added when bonds are cashed) and cash payments are included. Lump-sum payments for terminal leave, which were authorized by Public Law 350 of the 80th Congress, and which were started in October 1947, are excluded here and included under pay rolls.

<sup>8</sup> Separate figures for Army and Air Force not available. Combined data shown under Army.

## B: Labor Turn-Over

TABLE B-1: Monthly Labor Turn-Over Rates (Per 100 Employees) in Manufacturing Industries, by Class of Turn-Over <sup>1</sup>

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Total accession:</b>												
1949	3.2	* 2.9										
1948	4.6	3.9	4.0	4.0	4.1	5.7	4.7	5.0	5.1	4.5	3.9	* 2.7
1947	6.0	5.0	5.1	5.1	4.8	5.5	4.9	5.3	5.9	5.5	4.8	3.6
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1939 <sup>2</sup>	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.5
<b>Total separation:</b>												
1949	4.6	* 4.2										
1948	4.3	4.2	4.5	4.7	4.3	4.5	4.4	5.1	5.4	4.5	4.1	4.3
1947	4.9	4.5	4.9	5.2	5.4	4.7	4.6	5.3	5.9	5.0	4.0	3.7
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1939 <sup>2</sup>	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	2.5
<b>Quit:</b>												
1949	1.7	* 1.5										
1948	2.6	2.5	2.8	3.0	2.8	2.9	2.9	3.4	3.9	2.8	2.2	1.7
1947	3.5	3.2	3.5	3.7	3.5	3.1	3.1	4.0	4.5	3.6	2.7	2.3
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1939 <sup>2</sup>	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
<b>Discharge:</b>												
1949	.3	* .3										
1948	.4	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4	.3
1947	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4
1939 <sup>2</sup>	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
<b>Lay-off:</b>												
1949	2.5	* 2.3										
1948	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.2	1.0	1.2	1.4	2.2
1947	.9	.8	.9	1.0	1.4	1.1	1.0	.8	.9	.9	.8	.9
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	1.0
1939 <sup>2</sup>	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
<b>Miscellaneous, including military:</b>												
1949	.1	* .1										
1948	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1947	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1

<sup>1</sup> Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month, while the latter, for the most part, refer to a 1-week period ending nearest the 15th of the month. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving,

are not covered. Plants on strike are also excluded. See Note, table B-2.

<sup>2</sup> Preliminary figures.

<sup>3</sup> Prior to 1943, rates relate to wage earners only.

<sup>4</sup> Prior to September 1940, miscellaneous separations were included with quits.

<sup>5</sup> Including temporary, indeterminate (of more than 7 days' duration), and permanent lay-offs.



TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries<sup>1</sup>

Industry group and industry	Total accession		Separation								Miscellaneous, including military	
			Total		Quit		Discharge		Lay-off			
	Feb. 1949 <sup>1</sup>	Jan. 1949	Feb. 1949 <sup>1</sup>	Jan. 1949	Feb. 1949 <sup>1</sup>	Jan. 1949	Feb. 1949 <sup>1</sup>	Jan. 1949	Feb. 1949 <sup>1</sup>	Jan. 1949	Feb. 1949 <sup>1</sup>	Jan. 1949
MANUFACTURING												
Durable goods.....	2.8	3.1	4.3	5.0	1.3	1.7	0.3	0.3	2.6	2.8	0.1	0.1
Nondurable goods.....	3.1	3.4	4.0	4.4	1.6	1.9	.3	.3	2.0	2.1	.1	.1
<i>Durable goods</i>												
Iron and steel and their products.....	2.3	2.7	3.8	3.7	1.2	1.5	.2	.3	2.2	1.7	.2	.2
Blast furnaces, steel works, and rolling mills.....	2.1	2.4	1.9	1.9	1.1	1.3	.2	.1	.4	.3	.2	.2
Gray-iron castings.....	2.6	3.3	5.5	5.4	1.4	1.9	.5	.6	3.5	2.8	.1	.1
Malleable-iron castings.....	1.8	2.7	6.5	7.2	1.2	1.8	.2	.4	4.9	4.8	.2	.2
Steel castings.....	2.0	2.3	3.8	4.4	1.2	1.6	.2	.4	2.3	2.3	.1	.2
Cast-iron pipe and fittings.....	1.6	1.9	3.0	2.6	1.7	1.5	.3	.2	.9	.8	.1	.1
Tin cans and other tinware.....	2.9	2.9	6.6	9.0	.9	1.5	.4	.4	4.9	6.8	.4	.3
Wire products.....	1.4	2.4	2.5	2.8	.8	1.2	.2	.3	1.4	1.1	.1	.2
Cutlery and edge tools.....	1.7	3.3	3.3	3.6	1.6	1.4	.3	.3	1.3	1.7	.1	.2
Tools (except edge tools, machine tools, files, and saws).....	1.8	2.2	3.6	2.8	.9	1.1	.3	.2	2.3	1.4	.1	.1
Hardware.....	1.6	3.0	5.6	5.4	1.4	2.6	.3	.4	3.8	2.3	.1	.1
Stoves, oil burners, and heating equipment.....	3.9	4.1	9.2	9.3	1.4	1.8	.4	.2	7.3	7.1	.1	.2
Steam and hot-water heating apparatus and steam fittings.....	2.2	4.1	5.2	6.1	1.0	2.1	.4	.4	3.7	3.5	.1	.1
Stamped and enameled ware and galvanizing.....	3.4	3.0	5.7	7.0	1.3	1.6	.2	.3	4.1	4.9	.1	.2
Fabricated structural-metal products.....	3.5	3.5	3.6	3.8	1.0	1.5	.4	.3	2.2	1.7	( <sup>2</sup> )	.3
Bolts, nuts, washers, and rivets.....	1.1	1.9	2.8	2.3	1.0	1.2	.1	.3	1.6	.6	.1	.2
Forgings, iron and steel.....	1.7	1.9	3.9	3.5	.9	1.1	.2	.2	2.7	2.1	.1	.1
Electrical machinery.....	1.8	2.5	3.5	4.3	1.1	1.5	.2	.2	2.1	2.5	.1	.1
Electrical equipment for industrial use.....	1.4	1.7	2.0	2.1	.8	.9	.1	.1	.9	1.0	.2	.1
Radios, radio equipment, and phonographs.....	3.0	4.6	7.2	6.2	2.1	2.5	.4	.4	4.6	3.2	.1	.1
Communication equipment, except radios.....	.8	1.0	2.5	4.2	.9	1.3	.1	.1	1.4	2.7	.1	.1
Machinery, except electrical.....	1.9	2.3	3.4	3.9	1.0	1.2	.2	.3	2.1	2.2	.1	.2
Engines and turbines.....	3.3	4.0	3.5	3.4	1.0	1.1	.2	.3	2.1	1.9	.2	.1
Agricultural machinery and tractors.....	2.3	2.7	2.9	3.2	1.3	1.4	.3	.4	1.1	1.1	.2	.3
Machine tools.....	.9	1.4	2.9	3.7	.7	.9	.2	.3	1.9	2.4	.1	.1
Machine-tool accessories.....	2.3	2.6	3.6	5.4	.6	1.0	.1	.2	2.8	4.1	.1	.1
Metal working machinery and equipment, not elsewhere classified.....	1.3	1.4	2.6	4.1	.9	1.3	.3	.3	1.3	2.3	.1	.2
General industrial machinery, except pumps.....	1.6	2.5	3.4	3.4	1.0	1.3	.2	.3	2.1	1.7	.1	.1
Pumps and pumping equipment.....	1.5	2.2	2.7	2.8	.7	1.0	.2	.3	1.7	1.4	.1	.1
Transportation equipment, except automobiles.....	5.6	6.3	4.9	6.7	1.4	1.7	.2	.3	3.2	4.6	.1	.1
Aircraft.....	4.5	4.8	3.4	4.8	1.5	1.9	.2	.3	1.7	2.5	( <sup>3</sup> )	.1
Aircraft parts, including engines.....	3.1	3.2	1.7	2.7	.8	1.2	.3	.3	.5	1.1	.1	.1
Shipbuilding and repairs.....	( <sup>4</sup> )	12.5	( <sup>4</sup> )	14.0	( <sup>4</sup> )	2.1	( <sup>4</sup> )	.4	( <sup>4</sup> )	11.4	( <sup>4</sup> )	.1
Automobiles.....	4.7	3.0	5.8	5.7	1.6	2.2	.2	.4	3.9	2.9	.1	.2
Motor vehicles, bodies, and trailers.....	4.9	3.2	5.2	5.7	1.9	2.7	.3	.4	2.8	2.4	.2	.2
Motor-vehicle parts and accessories.....	4.4	2.8	6.9	5.5	1.2	1.3	.2	.3	5.4	3.7	.1	.2
Nonferrous metals and their products.....	1.8	2.5	5.0	4.8	1.0	1.3	.3	.3	3.6	3.1	.1	.1
Primary smelting and refining, except aluminum and magnesium.....	1.4	1.6	1.4	2.6	.6	1.1	.3	.3	.5	1.0	( <sup>3</sup> )	.2
Rolling and drawing of copper alloys.....	.6	1.3	5.7	3.0	.6	.8	.1	.2	4.8	1.9	.2	.1
Lighting equipment.....	2.2	2.6	7.3	5.7	1.4	1.2	.2	.1	5.6	4.4	.1	( <sup>3</sup> )
Nonferrous metal foundries, except aluminum and magnesium.....	2.1	2.9	6.9	6.0	1.4	1.7	.2	.7	5.2	3.4	.1	.2
Lumber and timber basic products.....	2.7	3.9	4.3	6.8	1.7	2.4	.4	.2	2.1	4.1	.1	.1
Sawmills.....	2.7	4.2	4.2	5.6	1.7	2.3	.2	.2	2.2	3.1	.1	( <sup>3</sup> )
Planing and plywood mills.....	2.2	2.1	4.1	4.7	1.4	1.4	.7	.2	1.9	3.0	.1	.1
Furniture and finished lumber products.....	4.0	4.2	6.5	7.6	1.8	2.0	.5	.5	4.1	4.9	.1	.2
Furniture, including mattresses and bedsprings.....	4.1	4.1	6.3	7.9	1.8	2.0	.5	.6	3.9	5.2	.1	.1
Stone, clay, and glass products.....	1.7	2.2	3.7	4.3	1.2	1.5	.2	.3	2.2	2.3	.1	.2
Glass and glass products.....	2.0	2.7	5.2	6.3	1.0	1.3	.2	.2	3.8	4.5	.2	.3
Cement.....	1.1	2.0	1.8	2.3	.9	1.4	.2	.3	.6	.4	.1	.2
Brick, tile, and terra cotta.....	2.0	2.3	4.1	4.8	1.5	2.2	.5	.3	2.0	2.2	.1	.1
Pottery and related products.....	2.0	2.4	3.0	3.0	1.7	2.0	.3	.4	.9	.4	.1	.2

See footnotes at end of table.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries<sup>1</sup>—Continued

Industry group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous, including military	
	Feb. 1949 <sup>2</sup>	Jan. 1949	Feb. 1949 <sup>2</sup>	Jan. 1949	Feb. 1949 <sup>2</sup>	Jan. 1949	Feb. 1949 <sup>2</sup>	Jan. 1949	Feb. 1949 <sup>2</sup>	Jan. 1949	Feb. 1949 <sup>2</sup>	Jan. 1949
<b>MANUFACTURING—Continued</b>												
<i>Nondurable goods</i>												
Textile-mill products.....	2.8	2.7	4.3	4.3	1.5	1.8	0.2	0.2	2.5	2.2	0.1	0.1
Cotton.....	2.7	2.9	3.8	4.5	1.8	2.2	.2	.3	1.8	1.9	( <sup>3</sup> )	.1
Silk and rayon goods.....	2.0	2.4	4.4	4.5	1.4	1.6	.2	.3	2.7	2.5	.1	.1
Woolen and worsted, except dyeing and finishing.....	4.4	2.2	7.0	5.9	1.0	1.1	.1	.2	5.8	4.5	.1	.1
Hosiery, full-fashioned.....	2.2	2.2	2.7	2.7	1.4	1.6	.2	.2	1.0	.8	.1	.1
Hosiery, seamless.....	4.9	4.1	3.1	5.3	1.9	2.6	.1	.1	1.1	2.6	( <sup>3</sup> )	( <sup>3</sup> )
Knitted underwear.....	3.8	3.0	7.3	5.6	1.7	2.2	.4	.2	5.2	3.2	( <sup>3</sup> )	( <sup>3</sup> )
Dyeing and finishing textiles, including woolen and worsted.....	2.9	2.1	1.7	3.1	.7	.9	.2	.2	.7	1.9	.1	.1
Apparel and other finished textile products.....	3.7	4.7	3.9	5.3	2.5	2.8	.2	.3	1.2	2.1	( <sup>3</sup> )	.1
Men's and boys' suits, coats, and overcoats.....	2.4	4.5	2.5	3.3	1.8	2.2	.2	.3	.5	.8	( <sup>3</sup> )	( <sup>3</sup> )
Men's and boys' furnishings, work clothing, and allied garments.....	4.0	3.9	4.9	6.3	3.0	3.4	.1	.1	1.8	2.6	( <sup>3</sup> )	.1
Leather and leather products.....	3.0	4.1	3.3	3.4	2.1	2.2	.3	.2	.8	.9	.1	.1
Leather.....	1.7	2.4	3.0	2.8	.8	1.1	.1	.2	2.0	1.4	.1	.1
Boots and shoes.....	3.2	4.3	3.3	3.4	2.3	2.4	.3	.2	.6	.7	.1	.1
Food and kindred products.....	4.4	4.7	5.4	6.0	1.8	2.1	.4	.5	3.1	3.3	.1	.1
Meat products.....	5.0	6.0	7.3	6.8	2.1	2.2	.5	.7	4.6	3.7	.1	.2
Grain-mill products.....	3.0	1.8	2.1	2.6	1.4	1.4	.4	.3	.2	.8	.1	.1
Bakery products.....	4.6	3.2	3.1	4.8	1.9	2.3	.4	.3	.7	2.1	.1	.1
Tobacco manufactures.....	2.9	3.9	3.5	4.0	1.8	2.1	.6	.3	1.0	1.5	.1	.1
Paper and allied products.....	1.4	1.7	2.3	3.0	1.0	1.4	.2	.3	1.0	1.2	.1	.1
Paper and pulp.....	1.2	1.3	2.1	2.3	.9	1.1	.2	.2	.9	.9	.1	.1
Paper boxes.....	1.3	2.2	3.0	4.4	1.4	1.9	.2	.5	1.3	1.8	.1	.2
Chemicals and allied products.....	1.0	1.3	2.0	2.3	.6	.8	.1	.2	1.2	1.2	.1	.1
Paints, varnishes, and colors.....	1.0	1.1	2.5	2.4	.5	.8	.2	.2	1.7	1.3	.1	.1
Rayon and allied products.....	.7	.9	1.4	2.3	.5	.6	.1	.2	.7	1.4	.1	.1
Industrial chemicals, except explosives.....	.9	1.6	2.3	2.4	.6	.8	.2	.2	1.4	1.2	.1	.2
Products of petroleum and coal.....	.6	.8	.7	1.5	.3	.4	( <sup>3</sup> )	.1	.3	.8	.1	.2
Petroleum refining.....	.5	.5	.6	1.4	.2	.4	( <sup>3</sup> )	.1	.3	.7	.1	.2
Rubber products.....	2.0	2.1	3.6	3.8	1.4	1.5	.2	.2	1.9	2.0	.1	.1
Rubber tires and inner tubes.....	1.3	1.3	2.1	2.3	1.0	.9	.1	.1	.9	1.2	.1	.1
Rubber footwear and related products.....	2.2	2.7	5.7	7.0	2.1	2.5	.2	.2	3.2	4.2	.2	.1
Miscellaneous rubber industries.....	3.0	3.2	4.3	3.9	1.6	1.8	.3	.3	2.3	1.7	.1	.1
Miscellaneous industries.....	( <sup>4</sup> )	3.1	( <sup>4</sup> )	3.5	( <sup>4</sup> )	1.1	( <sup>4</sup> )	.2	( <sup>4</sup> )	2.1	( <sup>4</sup> )	.1
<b>NONMANUFACTURING</b>												
Metal mining.....	3.1	3.9	3.1	3.8	1.9	2.7	.2	.2	.8	.6	.2	.3
Iron-ore.....	1.4	2.3	2.3	2.4	.7	1.0	.1	.1	1.3	.9	.2	.4
Copper-ore.....	5.4	5.2	4.2	5.2	3.4	4.4	.3	.2	.4	.4	.1	.2
Lead- and zinc-ore.....	2.5	3.8	2.7	3.0	2.0	2.5	.1	.2	.3	.2	.3	.1
Coal mining.....												
Anthracite.....	1.1	1.8	1.9	1.9	1.1	1.2	( <sup>3</sup> )	( <sup>3</sup> )	.6	.5	.2	.2
Bituminous.....	2.1	2.5	2.5	2.6	1.7	1.9	.1	.1	.6	.4	.1	.2
Public utilities:												
Telephone.....	( <sup>4</sup> )	1.6	( <sup>4</sup> )	1.6	( <sup>4</sup> )	1.2	( <sup>4</sup> )	.1	( <sup>4</sup> )	.2	( <sup>4</sup> )	.1
Telegraph.....	( <sup>4</sup> )	1.0	( <sup>4</sup> )	2.3	( <sup>4</sup> )	1.2	( <sup>4</sup> )	.1	( <sup>4</sup> )	.9	( <sup>4</sup> )	.1

<sup>1</sup> Since January 1943 manufacturing firms reporting labor turn-over information have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products. Labor turn-over data, beginning in January 1943, refer to wage and salary workers. Employment information for wage and salary workers is available for major

manufacturing industry groups (table A-3); for individual industries these data refer to production workers only (table A-6).

<sup>2</sup> Preliminary figures.

<sup>3</sup> Less than 0.05.

<sup>4</sup> Not available.

<sup>5</sup> Labor turn-over rates for the bakery products industry are published this month for the first time. Data for earlier years may be obtained upon request.

NOTE: Explanatory notes outlining the concepts, sources, size of the reporting sample, and methodology used in preparing the data presented in tables B-1 and B-2 are contained in the Bureau's monthly mimeographed release, "Labor Turn-Over," which is available upon request.



## C: Earnings and Hours

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>

## MANUFACTURING

Year and month	All manufacturing			Durable goods			Nondurable goods			Iron and steel and their products								
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Total: Iron and steel and their products			Blast furnaces, steel works, and rolling mills			Gray-iron and semi-steel castings		
										Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$23.86	37.7	\$0.633	\$26.50	38.0	\$0.698	\$21.78	37.4	\$0.582	\$27.52	37.2	\$0.739	\$29.88	35.3	\$0.845	\$25.93	37.1	\$0.699
1941: January.....	26.64	39.0	.683	30.48	40.7	.749	22.75	37.3	.610	31.07	40.4	.769	33.60	38.7	.809	30.45	41.2	.739
1948: February.....	51.75	40.2	1.287	54.77	40.5	1.352	48.56	39.9	1.217	56.99	40.4	1.409	59.74	39.5	1.513	57.24	41.2	1.390
March.....	52.07	40.4	1.289	55.25	40.9	1.352	48.66	39.9	1.220	57.28	40.6	1.412	59.26	39.4	1.510	58.47	41.8	1.401
April.....	51.79	40.1	1.292	54.96	40.5	1.357	48.33	39.6	1.220	56.49	39.9	1.416	58.37	38.6	1.513	56.39	40.2	1.404
May.....	51.86	39.9	1.301	54.81	40.1	1.366	48.65	39.6	1.230	57.39	40.3	1.423	60.54	39.9	1.515	55.15	39.3	1.403
June.....	52.85	40.2	1.316	56.13	40.5	1.385	49.37	39.8	1.242	57.70	40.3	1.431	59.54	39.3	1.515	57.85	40.7	1.422
July.....	52.95	39.8	1.332	56.21	40.0	1.407	49.49	39.5	1.252	57.71	39.6	1.457	60.37	38.7	1.559	56.66	39.8	1.426
August.....	54.05	40.1	1.349	58.19	40.7	1.431	49.79	39.5	1.262	60.52	40.3	1.501	65.10	39.6	1.642	58.26	40.3	1.447
September.....	54.19	39.8	1.362	57.95	40.0	1.448	50.37	39.6	1.272	60.69	39.7	1.528	66.02	39.3	1.679	59.44	40.2	1.480
October.....	54.65	40.0	1.366	59.41	40.9	1.452	49.70	39.1	1.271	62.17	40.8	1.525	67.02	40.4	1.657	59.27	40.2	1.475
November.....	54.56	39.8	1.372	58.71	40.4	1.454	50.18	39.1	1.282	61.72	40.5	1.526	66.27	40.0	1.657	58.45	39.8	1.472
December.....	55.01	40.0	1.376	59.23	40.7	1.456	50.52	39.3	1.287	61.95	40.5	1.528	66.00	39.8	1.656	58.88	40.0	1.472
1949: January.....	54.41	39.4	1.381	58.51	40.1	1.459	50.08	38.7	1.294	61.01	39.9	1.529	66.16	39.7	1.657	57.14	39.0	1.467
February.....	54.25	39.4	1.377	58.32	40.0	1.458	50.01	38.8	1.289	60.51	39.6	1.528	65.35	39.5	1.646	56.06	38.1	1.471
Iron and steel and their products—Continued																		
Malleable-iron castings			Steel castings			Cast-iron pipe and fittings			Tin cans and other tinware			Wirework			Cutlery and edge tools			
1939: Average.....	\$24.16	36.0	\$0.671	\$27.97	36.9	\$0.759	\$21.33	36.4	\$0.581	\$23.61	38.8	\$0.611	\$25.96	38.1	\$0.683	\$23.11	39.1	\$0.601
1941: January.....	28.42	40.2	.707	32.27	41.4	.780	25.42	40.5	.626	25.31	39.8	.639	28.27	39.7	.712	25.90	40.5	.652
1948: February.....	57.44	40.8	1.405	58.52	40.5	1.445	50.42	40.3	1.250	50.44	40.1	1.263	55.47	41.1	1.349	50.09	41.6	1.193
March.....	57.79	40.8	1.414	59.88	41.3	1.450	50.21	40.1	1.248	49.76	39.8	1.251	55.70	41.0	1.355	50.20	41.5	1.207
April.....	56.77	39.8	1.424	60.13	41.2	1.458	48.52	38.5	1.258	49.65	39.8	1.250	54.96	40.4	1.360	49.90	41.4	1.205
May.....	57.21	40.4	1.415	60.49	41.3	1.463	51.07	40.2	1.271	50.98	40.2	1.273	55.11	40.5	1.367	50.22	41.2	1.217
June.....	57.46	40.1	1.430	61.60	41.7	1.479	52.74	40.9	1.288	53.04	41.0	1.295	55.82	40.6	1.373	50.36	41.4	1.216
July.....	57.37	39.9	1.441	58.71	40.0	1.467	51.94	40.5	1.281	56.99	42.0	1.362	57.36	40.0	1.422	50.03	40.5	1.235
August.....	59.44	40.2	1.470	61.79	41.4	1.492	52.84	40.6	1.302	57.04	41.6	1.368	58.11	40.3	1.443	51.77	41.6	1.245
September.....	59.24	39.4	1.505	61.27	39.8	1.539	53.93	41.1	1.309	60.03	42.8	1.401	56.91	39.2	1.451	51.25	41.3	1.240
October.....	61.58	40.6	1.517	63.36	41.0	1.544	55.08	41.7	1.319	55.46	40.3	1.378	59.74	40.8	1.463	52.49	42.0	1.248
November.....	60.71	39.9	1.527	63.92	41.3	1.547	56.97	42.9	1.326	54.51	40.1	1.363	59.47	40.5	1.468	52.89	41.7	1.267
December.....	61.49	40.1	1.532	63.79	41.2	1.547	57.06	42.9	1.330	56.23	41.3	1.363	60.05	40.5	1.481	52.78	41.6	1.269
1949: January.....	59.08	39.0	1.512	62.21	40.3	1.542	58.09	42.5	1.368	54.45	39.9	1.363	60.18	40.7	1.477	51.96	41.3	1.260
February.....	56.49	37.6	1.502	62.57	40.5	1.545	58.72	43.0	1.367	54.58	39.9	1.367	59.20	40.3	1.469	50.46	40.3	1.255
Iron and steel and their products—Continued																		
Tools (except edge tools, machine tools, files, and saws)			Hardware			Plumbers' supplies			Stoves, oil burners, and heating equipment, not elsewhere classified			Steam and hot-water heating apparatus and steam fittings			Stamped and enameled ware and galvanizing			
1939: Average.....	\$24.49	39.7	\$0.618	\$23.13	38.9	\$0.593	\$25.80	38.2	\$0.676	\$25.25	38.1	\$0.666	\$26.19	37.6	\$0.697	\$23.92	38.1	\$0.627
1941: January.....	29.49	44.7	.662	25.24	40.9	.621	27.13	39.0	.696	26.07	38.7	.678	30.98	42.5	.732	26.32	39.4	.665
1948: February.....	54.02	42.3	1.278	52.79	42.3	1.249	55.26	40.4	1.367	54.59	40.2	1.358	57.07	41.3	1.383	52.42	40.0	1.311
March.....	54.68	42.6	1.287	52.63	42.0	1.252	56.54	41.2	1.374	54.12	40.1	1.352	56.53	40.9	1.380	52.78	40.3	1.311
April.....	54.15	41.9	1.293	52.05	41.6	1.251	56.27	40.6	1.386	54.34	39.9	1.363	56.13	40.7	1.378	52.93	40.1	1.321
May.....	54.01	41.6	1.299	50.84	40.4	1.253	56.93	41.0	1.388	54.18	39.7	1.366	56.90	40.7	1.396	53.75	40.3	1.332
June.....	54.96	42.1	1.308	52.22	40.6	1.285	56.51	40.4	1.401	55.95	40.2	1.392	57.68	40.7	1.418	53.54	40.2	1.330
July.....	54.11	41.2	1.314	50.27	38.8	1.295	56.48	40.2	1.405	55.26	39.7	1.392	59.42	41.0	1.448	52.62	38.6	1.363
August.....	56.53	42.2	1.342	52.62	40.3	1.306	58.12	40.7	1.429	57.04	40.5	1.411	58.18	40.3	1.444	54.80	39.8	1.378
September.....	55.09	40.6	1.356	52.62	39.5	1.331	56.78	38.7	1.466	56.24	39.5	1.424	58.39	40.3	1.460	53.37	38.4	1.367
October.....	56.80	41.6	1.366	54.30	40.8	1.331	62.31	41.4	1.506	58.12	40.9	1.423	60.66	41.0	1.479	55.97	39.9	1.403
November.....	56.54	41.2	1.373	54.61	40.9	1.334	61.27	40.9	1.499	55.02	39.0	1.410	60.17	40.6	1.482	56.33	40.1	1.403
December.....	56.80	41.5	1.368	55.04	41.2	1.336	62.01	41.3	1.501	55.29	39.2	1.412	59.34	40.3	1.478	57.14	40.4	1.414
1949: January.....	55.85	41.0	1.364	54.14	40.4	1.339	57.26	38.6	1.483	52.22	37.4	1.395	56.61	38.9	1.454	55.63	39.3	1.414
February.....	55.52	40.7	1.366	53.12	39.9	1.341	56.00	37.7	1.485	51.42	36.5	1.400	57.25	39.3	1.457	54.92	38.9	1.411

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.  
MANUFACTURING—Continued

Year and month	Iron and steel and their products—Continued																	
	Fabricated structural and ornamental metal work			Metal doors, sash, frames, molding, and trim			Bolts, nuts, washers, and rivets			Forgings, iron and steel			Screw-machine products and wood screws			Steel barrels, kegs and drums		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$27.95	38.5	\$0.727				\$26.04	37.7	\$0.690	\$29.45	38.4	\$0.767						
1941: January.....	31.01	41.8	.743				29.58	41.9	.706	36.75	45.0	.818						
1948: February.....	55.31	40.9	1.353	\$55.88	41.7	\$1.342	57.38	42.0	1.364	65.51	41.4	1.583	\$56.62	42.8	\$1.324	\$51.35	38.2	\$1.343
March.....	56.15	41.1	1.371	57.35	41.1	1.385	59.20	43.1	1.372	64.42	40.8	1.579	56.99	42.9	1.327	53.16	39.5	1.344
April.....	55.77	40.8	1.365	57.97	41.2	1.392	58.44	42.5	1.375	63.10	40.0	1.577	56.30	42.4	1.327	53.49	39.2	1.361
May.....	57.16	41.2	1.388	58.55	41.0	1.412	57.88	42.2	1.371	62.64	40.0	1.566	56.06	42.1	1.331	55.31	40.4	1.369
June.....	57.84	41.2	1.395	61.49	42.7	1.439	58.76	42.3	1.386	64.74	40.7	1.580	55.65	41.9	1.328	55.41	40.5	1.399
July.....	55.39	39.4	1.398	56.45	39.4	1.435	57.37	41.5	1.383	63.44	40.0	1.585	55.85	41.2	1.355	53.24	38.6	1.381
August.....	59.92	41.1	1.447	61.80	42.2	1.465	60.97	42.3	1.440	66.59	40.4	1.647	56.52	41.2	1.366	58.39	39.9	1.402
September.....	57.25	39.2	1.448	63.75	42.7	1.489	59.43	40.8	1.454	68.82	40.6	1.695	56.77	41.0	1.386	53.74	36.5	1.468
October.....	61.83	42.3	1.462	62.98	42.4	1.478	60.87	41.5	1.464	70.63	41.4	1.708	58.61	41.8	1.400	58.59	39.7	1.477
November.....	61.74	41.9	1.472	62.43	42.1	1.483	61.41	42.0	1.458	70.61	41.2	1.715	57.39	41.2	1.393	59.33	40.1	1.479
December.....	61.79	42.2	1.465	63.87	42.9	1.488	62.77	42.6	1.472	71.27	41.7	1.708	58.15	41.6	1.398	62.86	41.6	1.511
1949: January.....	61.22	41.5	1.468	62.13	41.9	1.475	59.76	40.9	1.459	70.57	41.3	1.708	57.62	41.2	1.400	58.85	39.7	1.482
February.....	61.40	41.6	1.470	60.92	41.4	1.481	58.93	40.3	1.462	70.42	41.0	1.707	56.98	40.7	1.400	57.72	38.9	1.483
Iron and steel and their products—Continued																		
Electrical machinery																		
Firearms			Total: Electrical machinery			Electrical equipment			Radios and phonographs			Communication equipment			Total: Machinery, except electrical			
1939: Average.....	\$27.28	41.3	\$0.660	\$27.09	38.6	\$0.702	\$27.95	38.7	\$0.722	\$22.34	38.5	\$0.581	\$28.74	38.3	\$0.751	\$29.27	39.3	\$0.746
1941: January.....	35.09	48.6	.722	31.84	42.4	.751	33.18	43.4	.765	24.08	38.2	.632	32.47	41.4	.784	34.36	44.0	.781
1948: February.....	60.80	42.1	1.446	54.50	40.4	1.348	56.11	40.6	1.382	47.00	39.2	1.200	55.83	41.1	1.359	58.65	41.4	1.417
March.....	62.33	42.7	1.460	54.41	40.3	1.350	56.23	40.5	1.388	47.00	39.2	1.199	54.78	40.5	1.355	59.12	41.6	1.421
April.....	61.16	41.8	1.463	53.86	39.9	1.350	55.70	40.2	1.387	47.01	39.1	1.201	53.49	39.6	1.353	59.30	41.4	1.431
May.....	61.42	41.9	1.466	53.70	39.6	1.357	55.41	39.9	1.390	46.97	38.8	1.211	53.59	39.3	1.364	59.33	41.2	1.441
June.....	63.10	42.1	1.489	54.86	40.0	1.372	56.67	40.3	1.408	48.10	39.1	1.229	54.06	39.7	1.366	60.50	41.4	1.461
July.....	63.06	42.4	1.489	55.46	39.4	1.407	57.94	39.5	1.449	49.45	39.7	1.247	53.82	38.8	1.387	59.83	40.6	1.473
August.....	61.73	42.1	1.468	57.49	40.0	1.439	59.18	40.0	1.478	50.21	39.3	1.279	57.56	40.3	1.429	61.45	41.0	1.498
September.....	63.23	42.3	1.493	57.72	40.0	1.443	59.37	40.0	1.486	50.66	39.6	1.278	57.80	40.6	1.426	61.31	40.6	1.510
October.....	64.47	42.3	1.523	58.17	40.2	1.448	60.04	40.3	1.492	50.74	39.5	1.285	58.21	40.6	1.435	62.25	41.0	1.518
November.....	64.44	42.2	1.528	58.29	40.3	1.446	60.18	40.3	1.493	52.09	40.4	1.288	57.15	40.1	1.426	61.92	40.7	1.520
December.....	63.76	41.4	1.541	58.29	40.3	1.446	60.45	40.5	1.493	52.49	40.3	1.301	55.86	39.5	1.413	62.68	41.1	1.525
1949: January.....	63.29	41.0	1.544	57.41	39.7	1.446	59.53	39.9	1.492	50.18	39.0	1.286	56.19	39.5	1.424	61.56	40.5	1.529
February.....	64.45	41.3	1.554	57.57	39.7	1.450	59.82	40.0	1.498	50.08	38.9	1.287	55.59	39.2	1.418	61.30	40.3	1.521
Machinery, except electrical—Continued																		
Machinery and machine-shop products			Engines and turbines			Tractors			Agricultural machinery, excluding tractors			Machine tools			Machine-tool accessories			
1939: Average.....	\$28.76	39.4	\$0.730	\$28.67	37.4	\$0.767	\$32.13	38.3	\$0.839	\$26.46	37.0	\$0.716	\$32.25	42.9	\$0.752	\$31.78	40.9	\$0.777
1941: January.....	34.00	43.7	.777	36.50	44.1	.827	36.03	41.5	.868	29.92	39.5	.757	40.15	50.4	.797	37.90	50.0	.758
1948: February.....	58.11	41.8	1.392	62.66	41.6	1.527	59.40	40.6	1.464	57.80	40.4	1.432	60.54	42.3	1.432	63.59	42.2	1.508
March.....	58.29	41.8	1.395	63.31	41.6	1.525	59.43	40.6	1.464	59.55	41.0	1.451	60.58	42.3	1.433	62.30	41.8	1.491
April.....	58.57	41.6	1.408	62.47	41.0	1.530	60.08	39.4	1.526	58.87	40.5	1.455	60.29	42.0	1.437	63.50	42.0	1.513
May.....	59.05	41.6	1.418	63.46	41.2	1.543	64.12	35.5	1.526	59.44	40.7	1.461	60.63	42.0	1.443	63.19	41.8	1.514
June.....	59.51	41.6	1.432	63.59	40.2	1.581	61.83	40.8	1.516	61.31	41.1	1.493	61.75	42.0	1.469	62.23	41.4	1.504
July.....	58.81	40.7	1.444	61.53	38.8	1.588	63.30	41.1	1.541	60.22	40.0	1.504	61.09	41.6	1.469	62.71	41.3	1.515
August.....	60.73	41.3	1.470	63.78	40.0	1.599	64.33	40.5	1.586	60.37	39.7	1.529	61.85	41.6	1.486	65.17	41.4	1.574
September.....	60.42	40.7	1.486	63.66	39.4	1.621	63.70	40.4	1.578	62.20	40.5	1.537	62.11	41.6	1.492	63.43	40.6	1.564
October.....	61.76	41.3	1.495	66.10	40.6	1.634	63.76	40.4	1.578	61.45	40.0	1.534	63.31	41.8	1.514	64.40	41.0	1.570
November.....	61.46	41.0	1.499	65.27	40.1	1.629	61.67	39.3	1.569	60.59	39.6	1.531	62.84	41.5	1.513	63.87	40.8	1.566
December.....	62.11	41.5	1.499	66.96	41.1	1.632	62.84	40.0	1.572	62.18	40.1	1.552	63.09	41.6	1.516	65.54	41.7	1.572
1949: January.....	61.20	40.8	1.499	64.31	39.9	1.616	63.46	40.4	1.573	60.66	39.4	1.541	61.07	40.6	1.504	64.35	41.1	1.595
February.....	60.52	40.4	1.499	64.52	39.9	1.626	62.60	40.1	1.563	62.01	40.0	1.549	60.57	40.2	1.507	63.65	40.6	1.568

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.

## MANUFACTURING—Continued

## Machinery, except electrical—Continued

Year and month	Textile machinery			Typewriters			Cash registers; adding, and calculating machines			Washing machines, wringers, and driers, domestic			Sewing machines, domestic and industrial			Refrigerators and refrigeration equipment		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$26.19	39.8	\$0.660	\$23.98	37.3	\$0.643	\$30.38	37.2	\$0.821									
1941: January.....	30.13	44.6	.677	26.40	39.1	.675	34.78	41.4	.846									
1948: February.....	59.50	42.8	1.390	55.68	42.4	1.312	64.11	41.6	1.554	\$57.69	41.8	\$1.382	\$63.14	42.8	\$1.476	\$52.55	38.1	\$1.378
March.....	61.40	43.7	1.406	54.62	42.0	1.301	65.30	42.2	1.561	56.38	41.2	1.370	63.90	43.0	1.483	55.51	39.9	1.392
April.....	61.01	43.5	1.403	54.63	42.0	1.301	65.62	42.1	1.573	58.15	42.1	1.383	61.01	42.3	1.434	55.99	40.2	1.391
May.....	61.28	43.3	1.417	53.31	41.2	1.294	64.55	41.5	1.570	57.39	41.3	1.390	64.89	41.8	1.551	56.72	40.5	1.402
June.....	62.53	43.3	1.443	53.75	41.2	1.305	66.43	41.5	1.614	59.29	41.8	1.417	65.99	42.5	1.553	59.47	40.5	1.467
July.....	60.61	42.1	1.440	54.62	41.5	1.317	67.45	41.5	1.639	57.05	39.5	1.445	65.19	41.5	1.571	57.22	38.6	1.482
August.....	62.21	42.3	1.470	52.78	40.6	1.300	66.00	40.8	1.628	61.27	41.2	1.486	68.04	43.1	1.578	59.40	39.2	1.514
September.....	62.86	42.4	1.483	53.31	40.5	1.316	66.04	40.4	1.646	59.32	39.5	1.500	69.17	43.1	1.604	60.07	39.5	1.522
October.....	62.26	42.1	1.480	48.51	36.9	1.316	65.51	40.0	1.646	62.13	41.5	1.498	70.20	43.7	1.608	62.60	40.6	1.540
November.....	62.24	41.8	1.490	56.11	40.9	1.371	66.63	40.8	1.644	61.04	40.7	1.499	71.30	44.0	1.618	61.02	40.0	1.526
December.....	63.58	42.3	1.498	56.63	41.3	1.372	67.99	40.9	1.673	51.12	35.1	1.458	71.02	44.0	1.608	61.60	40.0	1.541
1949: January.....	62.24	41.6	1.490	53.59	39.5	1.356	67.33	40.3	1.679	54.02	37.6	1.446	68.62	42.8	1.601	60.32	39.3	1.535
February.....	61.39	41.0	1.488	53.45	39.7	1.348	66.97	40.2	1.676	54.34	38.0	1.441	67.11	42.1	1.590	60.94	39.6	1.539

## Transportation equipment, except automobiles

Year and month	Total: Transportation equipment, except automobiles			Locomotives			Cars, electric and steam-railroad			Aircraft and parts, excluding aircraft engines			Aircraft engines			Shipbuilding and boatbuilding		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$30.51	38.9	\$0.785	\$28.33	36.7	\$0.771	\$26.71	36.0	\$0.741	\$30.34	41.5	\$0.745	\$36.58	44.1	\$0.835	\$31.91	38.0	\$0.835
1941: January.....	35.69	43.1	.828	34.79	42.8	.814	29.57	38.5	.768	34.13	44.7	.776	42.16	47.2	.892	37.69	42.0	.898
1948: February.....	58.67	39.6	1.482	61.01	39.2	1.555	58.02	40.2	1.442	56.13	39.9	1.406	58.29	40.1	1.452	61.54	38.9	1.582
March.....	59.40	40.3	1.472	63.46	40.2	1.579	58.90	40.9	1.439	56.71	40.1	1.414	59.53	40.6	1.467	62.07	40.3	1.539
April.....	59.89	40.5	1.478	64.96	40.5	1.604	58.70	40.9	1.437	57.75	40.6	1.421	60.33	40.5	1.491	62.04	40.2	1.541
May.....	59.30	40.0	1.481	64.57	40.1	1.610	58.07	40.2	1.446	57.74	40.4	1.428	61.02	40.9	1.494	60.40	39.4	1.531
June.....	59.27	39.8	1.489	64.58	39.7	1.626	58.46	39.9	1.467	57.99	40.4	1.436	62.14	40.6	1.532	59.76	39.2	1.525
July.....	58.95	39.2	1.503	64.00	38.4	1.665	56.19	38.3	1.466	57.89	40.0	1.449	64.79	40.6	1.594	59.49	38.8	1.532
August.....	60.53	39.7	1.527	64.76	38.7	1.674	61.81	40.5	1.526	59.68	40.5	1.475	65.11	41.1	1.583	58.87	37.7	1.564
September.....	60.74	39.0	1.556	66.52	39.7	1.677	57.21	37.4	1.531	61.38	40.7	1.507	66.26	41.2	1.609	58.62	36.6	1.604
October.....	62.70	39.8	1.575	63.74	38.3	1.663	63.16	40.8	1.548	62.45	40.6	1.537	67.75	41.7	1.623	60.52	37.5	1.616
November.....	61.98	39.3	1.579	66.29	39.0	1.698	62.74	40.2	1.562	63.30	40.9	1.545	66.61	41.2	1.617	56.16	35.0	1.606
December.....	64.34	40.6	1.585	71.90	40.5	1.774	66.03	42.0	1.571	63.11	40.9	1.541	67.30	41.7	1.616	63.21	39.1	1.617
1949: January.....	62.65	39.7	1.578	67.68	39.6	1.708	64.96	41.5	1.567	60.89	39.6	1.535	66.63	41.3	1.615	62.77	38.6	1.622
February.....	63.12	40.0	1.578	66.17	39.0	1.696	65.17	41.4	1.575	62.54	40.5	1.543	65.74	40.9	1.606	61.73	38.2	1.610

## Transportation equipment, except automobiles—Con.

## Nonferrous metals and their products

Year and month	Motorcycles, bicycles, and parts			Automobiles			Total: Nonferrous metals and their products			Smelting and refining, primary, of nonferrous metals			Alloying; and rolling and drawing of nonferrous metals, except aluminum			Clocks and watches		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....				\$32.91	35.4	\$0.929	\$26.74	38.9	\$0.687	\$26.67	38.2	\$0.699	\$28.77	39.6	\$0.729	\$22.27	37.9	\$0.587
1941: January.....				37.69	38.9	.969	30.47	41.4	.736	29.21	38.7	.755	35.96	44.0	.818	23.90	38.9	.614
1948: February.....	\$55.65	39.8	\$1.400	59.00	38.1	1.548	55.07	41.2	1.338	55.58	41.0	1.357	57.73	40.6	1.422	48.59	41.0	1.186
March.....	55.88	40.4	1.384	59.81	38.9	1.539	55.23	41.1	1.344	55.31	40.5	1.366	58.25	40.8	1.429	49.15	41.1	1.196
April.....	56.36	40.3	1.398	59.14	38.6	1.533	54.87	40.9	1.343	56.49	41.1	1.375	56.84	40.0	1.422	49.09	40.8	1.205
May.....	55.54	39.4	1.410	54.44	35.2	1.548	54.96	40.6	1.355	57.33	41.5	1.380	57.42	40.1	1.431	48.27	40.1	1.205
June.....	54.07	37.5	1.442	61.30	37.7	1.624	55.91	40.8	1.369	57.96	41.3	1.403	59.35	41.2	1.440	48.89	40.1	1.219
July.....	54.28	37.6	1.445	63.48	38.5	1.649	56.34	40.1	1.404	59.75	41.2	1.449	61.61	40.8	1.511	48.96	39.8	1.230
August.....	62.67	41.6	1.508	64.67	38.9	1.664	57.97	40.7	1.424	61.74	41.4	1.493	63.37	41.0	1.547	50.80	40.7	1.249
September.....	61.79	41.1	1.503	62.74	37.4	1.676	58.73	40.8	1.438	63.39	41.6	1.522	63.36	40.8	1.552	50.76	40.3	1.259
October.....	66.51	42.9	1.551	67.29	39.9	1.689	59.25	41.2	1.440	62.01	41.4	1.497	63.20	40.8	1.549	51.11	40.4	1.266
November.....	66.68	43.6	1.529	65.41	38.6	1.693	58.80	40.8	1.440	60.78	40.6	1.498	61.33	39.8	1.541	51.47	40.3	1.277
December.....	57.12	38.8	1.472	66.90	39.4	1.696	59.45	41.2	1.444	61.59	41.0	1.503	63.34	41.0	1.546	51.78	40.1	1.292
1949: January.....	55.69	37.9	1.468	68.10	39.8	1.711	58.52	40.5	1.445	62.88	41.1	1.531	61.43	40.1	1.533	50.78	39.7	1.281
February.....	56.62	38.3	1.468	68.08	40.0	1.702	58.39	40.3	1.449	61.88	40.8	1.516	59.12	38.7	1.528	50.73	39.5	1.286

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries <sup>1</sup>—Con.

## MANUFACTURING—Continued

Year and month	Nonferrous metals and their products—Continued												Lumber and timber basic products					
	Jewelry (precious metals) and jewelers' findings			Silverware and plated ware			Lighting equipment			Aluminum manufactures			Total: Lumber and timber basic products			Sawmills and logging camps		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$26.36	39.4	\$0.660	\$26.03	40.7	\$0.643	\$25.73	37.1	\$0.693	\$27.49	39.3	\$0.699	\$19.06	39.0	\$0.489	\$18.29	38.4	\$0.476
1941: January.....	26.43	39.1	.664	27.37	41.4	.666	28.19	39.3	.717	32.85	42.0	.782	20.27	38.9	.521	19.59	38.4	.510
1948: February.....	52.98	42.6	1.249	62.52	46.1	1.356	52.86	39.3	1.345	52.75	39.6	1.330	45.01	41.7	1.080	43.41	41.1	1.035
March.....	52.17	42.2	1.237	63.81	46.5	1.374	53.22	39.2	1.359	52.05	39.4	1.322	45.32	42.3	1.071	43.86	42.0	1.046
April.....	51.31	41.2	1.246	62.09	45.7	1.360	52.90	38.8	1.364	52.53	39.7	1.323	45.59	42.1	1.083	43.99	41.6	1.057
May.....	50.59	39.8	1.271	62.00	45.5	1.363	51.75	37.7	1.373	52.83	39.7	1.332	47.39	42.5	1.115	45.06	41.3	1.095
June.....	52.10	40.9	1.274	62.24	45.5	1.367	53.19	37.5	1.419	52.13	39.1	1.333	48.43	42.8	1.131	47.37	42.6	1.113
July.....	49.30	39.8	1.240	58.55	43.7	1.340	56.31	38.6	1.460	52.79	37.3	1.414	48.14	41.9	1.149	47.29	41.7	1.133
August.....	51.07	40.3	1.267	60.79	44.6	1.365	55.88	38.4	1.454	55.16	38.9	1.419	50.64	43.1	1.175	49.90	42.9	1.162
September.....	51.86	40.3	1.290	64.35	46.2	1.392	57.64	39.4	1.463	55.41	38.7	1.432	49.22	41.8	1.178	48.31	41.6	1.162
October.....	52.74	40.8	1.296	64.67	46.0	1.407	57.13	39.3	1.453	58.04	40.2	1.444	49.60	42.5	1.167	48.45	42.2	1.148
November.....	54.35	41.5	1.310	64.78	46.0	1.409	57.91	39.7	1.460	57.73	40.1	1.440	48.30	41.6	1.160	47.14	41.3	1.141
December.....	55.23	41.7	1.326	63.50	45.0	1.409	58.05	39.7	1.463	57.68	40.1	1.437	47.02	41.4	1.136	45.54	41.0	1.110
1949: January.....	52.36	40.4	1.298	60.79	43.4	1.401	57.34	39.0	1.472	57.34	40.2	1.433	46.21	41.3	1.119	45.03	41.2	1.093
February.....	52.74	40.6	1.309	60.94	43.3	1.408	60.96	40.0	1.530	57.38	40.2	1.433	44.39	40.1	1.107	42.72	39.7	1.076
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See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.

## MANUFACTURING—Continued

Year and month	Stone, clay, and glass products—Continued												Textile-mill products and other fiber manufactures					
	Lime			Marble, granite, slate, and other products			Abrasive			Asbestos products			Total: Textile-mill products and other fiber manufactures			Cotton manufactures, except smallwares		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average				\$26.18	36.9	\$0.714				\$24.43	39.0	\$0.627	\$16.84	36.6	\$0.460	\$14.26	36.7	\$0.389
1941: January				24.29	34.6	.708				27.26	41.3	.660	18.01	36.9	.488	15.60	37.2	.419
1948: February	\$47.86	43.7	\$1.091	46.23	40.4	1.146	\$58.38	42.6	\$1.372	54.04	40.9	1.322	45.79	40.2	1.139	43.43	40.1	1.083
March	50.58	45.8	1.102	47.57	40.9	1.162	60.62	42.6	1.424	54.49	41.3	1.318	46.32	40.6	1.140	43.98	40.7	1.081
April	52.08	46.3	1.127	47.97	40.9	1.160	59.02	41.5	1.423	55.11	41.2	1.338	45.46	39.9	1.138	43.08	40.1	1.076
May	52.41	46.1	1.136	49.44	41.3	1.193	61.04	41.9	1.457	55.45	41.3	1.340	45.22	39.6	1.142	42.64	39.6	1.078
June	53.32	45.9	1.153	49.21	40.9	1.198	61.39	42.2	1.456	56.17	41.7	1.348	45.29	39.5	1.147	42.00	39.1	1.075
July	52.46	44.4	1.169	48.27	39.8	1.209	58.53	41.3	1.423	57.18	41.7	1.373	44.15	38.6	1.145	40.63	38.0	1.070
August	54.78	45.8	1.192	50.32	41.1	1.219	60.17	41.5	1.449	57.52	41.4	1.391	45.07	38.5	1.170	41.61	37.7	1.106
September	54.75	45.0	1.217	50.05	40.9	1.221	62.09	42.0	1.479	58.81	42.0	1.400	45.12	38.0	1.188	41.69	37.1	1.125
October	55.45	45.8	1.203	50.34	41.2	1.220	62.30	41.8	1.492	58.85	41.6	1.415	44.94	37.9	1.187	41.60	36.9	1.127
November	55.24	45.4	1.213	48.76	39.3	1.238	61.37	41.4	1.482	57.45	40.9	1.406	45.17	38.0	1.190	41.60	37.0	1.125
December	53.89	44.5	1.203	51.80	41.6	1.246	60.57	40.7	1.460	57.67	41.2	1.399	45.55	38.3	1.189	42.21	37.5	1.126
1949: January	53.56	44.7	1.192	50.24	40.8	1.242	60.03	40.5	1.487	54.92	39.8	1.381	44.47	37.4	1.189	40.74	36.3	1.125
February	52.27	42.8	1.207	50.54	40.9	1.239	60.01	40.9	1.473	55.46	39.9	1.389	44.56	37.6	1.185	41.17	36.7	1.124
Textile-mill products and other fiber manufactures—Continued																		
	Cotton smallwares			Silk and rayon goods			Woolen and worsted manufactures, except dyeing and finishing			Hosiery			Knitted cloth			Knitted underwear and knitted gloves		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$18.22	39.0	\$0.474	\$15.78	36.5	\$0.429	\$19.21	36.4	\$0.528	\$18.98	35.6	\$0.536	\$18.15	38.4	\$0.468	\$17.14	37.0	\$0.461
1941: January	19.74	39.3	.503	16.53	35.7	.461	21.78	37.9	.576	18.51	33.8	.550	19.90	37.9	.503	17.65	35.8	.489
1948: February	43.23	40.4	1.072	47.92	41.8	1.147	52.82	40.8	1.303	41.72	37.6	1.108	45.23	41.9	1.079	39.18	38.7	1.001
March	43.31	40.2	1.080	48.53	42.2	1.151	53.49	40.7	1.313	42.80	38.6	1.108	45.84	41.9	1.094	39.08	38.6	1.004
April	43.03	39.6	1.087	48.31	41.8	1.156	52.33	39.9	1.311	41.61	37.4	1.112	44.39	41.4	1.072	38.73	38.4	1.007
May	42.72	39.3	1.089	48.38	41.8	1.157	52.61	40.1	1.314	41.14	36.7	1.120	42.79	39.7	1.078	39.00	38.5	1.012
June	43.98	39.8	1.106	48.47	41.8	1.159	53.10	40.3	1.320	42.01	36.6	1.146	43.94	40.7	1.079	38.84	38.3	1.004
July	43.48	39.3	1.107	47.69	41.6	1.147	52.31	39.5	1.327	41.52	36.1	1.148	44.21	40.5	1.091	37.28	37.2	.987
August	43.40	38.9	1.115	48.85	41.3	1.182	52.13	39.6	1.317	42.98	36.8	1.167	44.70	40.8	1.097	37.89	37.3	1.000
September	44.09	39.0	1.130	49.62	41.2	1.206	51.19	38.8	1.323	43.38	36.2	1.200	43.72	39.1	1.117	38.91	37.7	1.016
October	42.87	38.0	1.129	49.13	41.1	1.195	49.37	37.6	1.315	45.11	37.5	1.204	44.61	39.1	1.141	37.78	36.6	1.021
November	43.19	38.3	1.130	49.26	41.1	1.200	50.25	38.1	1.320	45.26	37.4	1.209	44.82	39.3	1.141	39.85	38.2	1.029
December	44.12	39.4	1.122	48.81	40.8	1.197	51.66	39.1	1.321	43.90	36.6	1.200	44.66	39.2	1.140	39.37	38.0	1.021
1949: January	43.26	38.8	1.114	47.00	39.8	1.181	51.37	38.8	1.325	42.63	35.5	1.199	45.65	40.0	1.140	40.63	38.3	1.044
February	43.76	39.0	1.122	46.75	39.3	1.190	50.40	38.1	1.322	42.68	36.2	1.179	45.72	39.8	1.141	40.15	37.7	1.049
Textile-mill products and other fiber manufactures—Continued																		
	Knitted underwear			Dyeing and finishing textiles, including woolen and worsted			Carpets and rugs, wool			Hats, fur-felt			Jute goods, except felts			Cordage and twine		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$15.05	36.9	\$0.410	\$20.82	38.6	\$0.535	\$23.25	36.1	\$0.644	\$22.73	32.2	\$0.707						
1941: January	16.06	36.0	.446	21.65	39.3	.551	25.18	37.3	.675	27.12	36.2	.755						
1948: February	37.76	38.9	.969	51.80	42.2	1.227	55.35	42.0	1.319	51.79	38.7	1.328	\$42.28	40.1	\$1.063	\$44.44	40.8	\$1.091
March	38.89	39.5	.981	51.85	42.3	1.227	55.79	42.1	1.327	50.36	37.2	1.348	42.44	40.0	1.060	43.65	40.6	1.079
April	38.72	39.1	.988	51.44	41.8	1.229	55.18	41.4	1.336	48.58	35.3	1.379	42.93	40.6	1.057	42.21	39.1	1.079
May	37.88	38.3	.987	50.67	41.3	1.226	56.22	41.8	1.348	49.94	36.7	1.364	42.69	40.1	1.064	41.82	38.5	1.084
June	38.09	38.4	.994	51.05	41.5	1.229	57.86	42.0	1.380	51.72	37.7	1.375	42.65	40.2	1.060	42.68	39.0	1.094
July	36.98	37.3	.990	48.76	39.9	1.221	57.42	40.7	1.412	49.52	37.1	1.338	42.58	40.6	1.048	41.08	37.7	1.088
August	38.05	37.3	1.016	49.86	40.1	1.241	59.36	41.3	1.439	52.52	37.3	1.411	43.37	41.1	1.056	41.82	38.0	1.101
September	36.80	35.8	1.023	50.47	39.9	1.264	59.30	41.3	1.438	50.54	35.7	1.414	41.77	40.3	1.036	41.85	37.4	1.120
October	37.00	36.0	1.023	50.54	39.7	1.271	60.08	41.1	1.464	49.78	35.5	1.397	43.77	41.3	1.059	42.90	38.4	1.119
November	36.19	35.3	1.025	50.98	39.9	1.274	60.27	41.0	1.471	47.87	33.9	1.407	43.91	41.4	1.062	43.54	38.3	1.136
December	35.89	34.9	1.023	52.36	41.2	1.269	59.75	40.8	1.466	53.07	37.6	1.413	43.89	41.2	1.066	43.79	38.4	1.139
1949: January	34.95	34.1	1.019	50.51	39.8	1.270	59.57	40.7	1.464	53.19	37.2	1.432	42.43	39.2	1.081	42.99	37.7	1.141
February	35.47	35.1	1.010	52.18	40.8	1.271	58.22	39.9	1.460	53.03	37.4	1.421	42.44	39.5	1.074	43.05	37.5	1.143

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.  
MANUFACTURING—Continued

Year and month	Apparel and other finished textile products																	
	Total: Apparel and other finished textile products			Men's clothing, not elsewhere classified			Shirts, collars, and nightwear			Underwear and neckwear, men's			Work shirts			Women's clothing, not elsewhere classified		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$18.17	34.5	\$0.527	\$19.32	33.2	\$0.581	\$13.75	34.6	\$0.398	\$14.18	35.4	\$0.401	\$11.03	35.8	\$0.309	\$19.20	33.9	\$0.519
1941: January.....	18.76	33.5	.560	20.40	33.4	.607	14.22	33.0	.431	14.85	33.6	.442	12.33	33.6	.367	19.47	33.2	.583
1948: February.....	40.23	36.7	1.008	44.05	37.1	1.176	34.20	36.8	.928	34.78	35.5	.974	25.69	35.6	.721	49.09	36.1	1.334
March.....	40.09	36.7	1.092	44.73	37.4	1.188	35.02	37.4	.934	35.77	36.3	.984	26.50	36.9	.718	48.10	36.1	1.310
April.....	37.61	36.2	1.040	44.31	37.3	1.173	34.39	36.9	.928	34.35	36.0	.954	26.85	36.8	.730	43.20	35.1	1.201
May.....	37.24	35.8	1.040	43.50	36.8	1.171	33.83	36.3	.927	34.80	36.8	.946	27.22	36.5	.744	43.27	35.1	1.206
June.....	37.61	35.6	1.055	43.19	36.4	1.169	33.00	35.5	.925	34.00	35.6	.950	27.21	37.1	.732	43.94	35.0	1.239
July.....	38.74	35.8	1.081	43.03	36.8	1.160	33.14	36.2	.924	34.54	36.0	.950	26.67	36.9	.735	46.09	34.9	1.304
August.....	40.27	36.4	1.106	43.98	36.8	1.180	32.88	35.7	.921	35.31	36.5	.968	27.70	37.4	.739	49.06	36.0	1.336
September.....	40.38	36.1	1.117	43.81	36.7	1.178	33.59	35.9	.933	35.74	36.0	.993	28.41	37.4	.759	49.15	35.6	1.352
October.....	37.77	34.8	1.087	41.07	35.0	1.160	33.44	35.9	.931	35.29	35.9	.982	28.34	37.6	.751	44.39	35.5	1.302
November.....	39.40	35.9	1.099	41.78	35.4	1.167	34.04	36.1	.942	37.07	36.9	1.004	26.46	35.1	.754	48.05	35.7	1.321
December.....	38.95	35.4	1.101	41.95	35.3	1.180	32.26	34.2	.944	36.37	36.6	.997	25.75	33.3	.771	47.34	35.1	1.317
1949: January.....	39.34	35.0	1.124	41.52	34.8	1.180	31.24	32.8	.948	34.04	35.3	.998	26.29	34.4	.769	48.45	35.1	1.355
February.....	39.96	35.9	1.113	42.79	36.0	1.176	32.37	34.2	.932	35.99	36.0	1.007	27.14	35.5	.770	48.51	35.6	1.336
Year and month	Apparel and other finished textile products—Continued																	
	Corsets and allied garments			Millinery			Handkerchiefs			Curtains, draperies, and bedspreads			Housefurnishings, other than curtains, etc.			Textile bags		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$17.15	37.5	\$0.456	\$22.19	33.8	\$0.636	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1941: January.....	17.24	35.6	.482	22.31	30.6	.648	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1948: February.....	37.07	37.9	.979	57.84	39.3	1.415	\$32.66	36.4	\$0.897	\$30.69	35.9	\$0.854	\$36.83	37.7	\$0.965	\$36.23	38.0	\$0.952
March.....	38.14	38.5	.993	52.77	36.9	1.394	34.21	37.1	.922	31.40	35.4	.882	38.29	38.1	1.000	35.80	37.1	.964
April.....	37.39	37.8	.991	49.95	36.0	1.353	33.09	36.1	.917	30.17	33.1	.891	38.46	38.2	1.001	36.35	37.2	.977
May.....	35.85	35.8	1.003	42.82	31.5	1.333	31.66	34.8	.909	30.41	32.9	.912	37.52	37.2	.998	37.94	38.4	.987
June.....	36.58	36.2	1.013	45.29	32.7	1.352	31.40	34.3	.917	30.50	33.6	.898	40.19	39.1	1.019	38.10	38.3	.995
July.....	36.10	36.0	1.003	50.99	34.8	1.414	30.62	33.8	.907	30.33	34.6	.892	39.01	38.2	1.010	38.93	38.9	1.001
August.....	36.51	36.6	.999	54.26	36.7	1.449	32.79	35.7	.920	31.97	35.8	.898	39.72	38.6	1.014	39.68	39.2	1.012
September.....	37.07	37.1	1.002	55.64	36.5	1.467	34.34	37.2	.924	32.54	35.8	.922	38.65	36.7	1.032	41.34	39.7	1.042
October.....	37.66	37.0	1.019	51.37	34.0	1.467	36.24	38.7	.937	32.86	36.0	.920	41.33	39.4	1.036	41.42	40.2	1.030
November.....	38.25	37.8	1.012	42.97	30.4	1.381	36.70	38.9	.944	32.93	36.6	.909	41.78	39.8	1.038	40.98	39.8	1.029
December.....	37.58	37.3	1.009	48.68	34.3	1.391	36.00	38.1	.946	32.49	35.2	.920	41.85	39.7	1.041	41.81	40.3	1.038
1949: January.....	37.10	36.4	1.021	51.51	34.8	1.447	34.56	36.7	.942	32.68	35.2	.930	38.37	37.0	1.032	40.93	39.4	1.040
February.....	38.16	37.1	1.034	59.41	37.4	1.529	36.37	38.2	.952	34.50	37.5	.924	39.77	38.6	1.022	40.05	38.5	1.043
Year and month	Leather and leather products																	
	Total: Leather and leather products			Leather			Boot and shoe cut stock and findings			Boots and shoes			Leather gloves and mittens			Trunks and suitcases		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$19.13	36.2	\$0.528	\$24.43	38.7	\$0.634	-----	-----	-----	\$17.83	35.7	\$0.503	-----	-----	-----	-----	-----	-----
1941: January.....	20.66	37.3	.554	25.27	38.3	.662	-----	-----	-----	19.58	37.0	.530	-----	-----	-----	-----	-----	-----
1948: February.....	42.99	39.0	1.102	53.38	40.5	1.317	\$41.23	38.4	\$1.080	41.35	38.8	1.065	\$33.67	36.0	\$0.941	\$45.61	40.6	\$1.129
March.....	41.87	37.8	1.106	51.91	39.4	1.315	40.55	37.6	1.086	40.21	37.5	1.071	33.82	36.0	.940	45.83	40.6	1.135
April.....	40.34	36.2	1.116	51.59	39.1	1.318	39.90	36.5	1.107	38.09	35.3	1.080	33.18	35.4	.938	45.35	40.1	1.130
May.....	39.65	35.5	1.118	52.38	39.4	1.330	39.72	36.3	1.105	36.79	34.3	1.074	34.77	35.2	.991	45.06	39.6	1.137
June.....	41.38	37.0	1.118	53.11	39.5	1.345	41.24	37.4	1.108	39.00	36.4	1.074	35.78	35.8	.999	44.86	39.0	1.150
July.....	41.64	37.4	1.114	53.39	39.5	1.351	41.09	37.4	1.104	39.41	37.0	1.069	35.01	35.8	.988	44.42	38.8	1.152
August.....	42.80	37.9	1.128	53.70	39.8	1.356	42.62	38.8	1.105	40.65	37.4	1.087	35.79	36.3	1.005	47.19	40.6	1.168
September.....	42.65	37.3	1.143	53.13	38.9	1.367	42.00	38.1	1.117	40.61	36.8	1.104	35.41	35.6	1.002	47.65	40.7	1.175
October.....	41.56	36.3	1.145	53.52	39.1	1.368	40.46	36.2	1.125	39.15	35.6	1.102	34.72	35.1	.995	47.61	40.0	1.193
November.....	40.84	35.5	1.151	53.82	39.1	1.377	39.73	35.6	1.134	37.97	34.4	1.105	34.74	34.9	1.004	49.26	41.4	1.193
December.....	42.61	37.2	1.145	55.39	40.1	1.381	42.51	37.6	1.137	40.23	36.6	1.101	33.15	34.4	.962	45.24	38.2	1.183
1949: January.....	42.52	37.2	1.143	54.61	39.7	1.375	41.95	37.6	1.127	40.62	36.9	1.101	34.68	35.8	.973	39.78	35.0	1.148
February.....	42.98	37.6	1.143	54.38	39.5	1.377	43.00	38.5	1.122	40.95	37.2	1.104	34.34	36.1	.961	42.54	37.7	1.143

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.

## MANUFACTURING—Continued

Year and month	Food																	
	Total: Food			Slaughtering and meat packing			Butter			Condensed and evaporated milk			Ice cream			Flour		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$24.43	40.3	\$0.607	\$27.85	40.6	\$0.686	\$22.60	46.7	\$0.484				\$29.24	46.2	\$0.626	\$25.80	42.3	\$0.605
1941: January	24.69	39.0	.633	26.84	39.3	.681	22.84	44.6	.509				29.41	44.2	.653	25.27	41.0	.608
1948: February	49.18	41.6	1.181	51.88	40.7	1.277	47.28	46.3	1.011	\$51.68	45.9	\$1.125	51.12	45.0	1.093	54.56	45.9	1.189
March	49.36	41.6	1.187	56.62	43.6	1.301	45.92	45.8	1.011	52.28	46.4	1.126	51.44	45.4	1.095	50.99	43.7	1.167
April	50.95	42.4	1.201	68.51	48.1	1.425	47.16	45.6	1.032	53.51	46.7	1.147	50.86	45.3	1.087	53.07	45.3	1.173
May	51.26	42.5	1.207	67.66	46.7	1.424	47.52	45.9	1.033	55.36	47.5	1.165	51.11	45.0	1.086	55.12	46.1	1.196
June	52.09	42.8	1.217	61.24	44.1	1.383	48.42	46.3	1.043	56.66	48.5	1.168	52.22	45.8	1.103	57.48	47.8	1.204
July	51.77	42.6	1.215	58.75	42.9	1.368	49.66	46.9	1.063	56.42	47.6	1.186	53.58	46.2	1.125	60.05	48.4	1.241
August	49.74	41.0	1.214	55.71	41.2	1.351	49.82	46.6	1.067	56.07	47.7	1.174	52.81	44.7	1.147	61.14	48.1	1.271
September	51.76	42.6	1.216	57.64	42.3	1.361	49.58	45.8	1.081	55.99	47.0	1.191	54.46	45.3	1.173	60.77	46.3	1.315
October	51.47	41.8	1.232	57.38	41.9	1.367	49.43	45.8	1.079	53.71	45.4	1.183	53.92	44.5	1.163	62.03	47.9	1.297
November	51.83	41.5	1.249	61.07	43.1	1.416	49.87	46.0	1.083	54.29	45.9	1.182	54.45	44.3	1.177	58.94	45.6	1.291
December	52.86	41.8	1.264	62.63	44.5	1.404	49.62	45.0	1.100	54.29	45.5	1.192	54.66	45.0	1.161	58.34	45.2	1.293
1949: January	52.66	41.5	1.269	60.30	43.1	1.397	50.48	45.4	1.110	54.78	45.0	1.218	54.39	45.1	1.161	61.26	46.4	1.322
February	52.24	41.3	1.265	56.04	40.6	1.381	50.49	44.9	1.120	55.53	45.7	1.216	55.49	46.1	1.162	57.23	44.7	1.284
Year and month	Food—Continued																	
	Cereal preparations			Baking			Sugar refining, cane			Sugar, beet			Confectionery			Beverages, non-alcoholic		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average				\$25.70	41.7	\$0.621	\$23.91	37.6	\$0.636	\$24.68	42.9	\$0.585	\$18.64	38.1	\$0.492	\$24.21	43.6	\$0.556
1941: January				26.46	41.1	.644	22.73	35.0	.650	24.03	36.5	.630	19.19	37.6	.511	25.28	42.0	.602
1948: February	\$55.58	40.6	\$1.369	49.30	43.6	1.132	44.66	37.9	1.177	55.30	42.4	1.305	40.45	38.9	1.045	44.99	42.9	1.048
March	52.46	38.7	1.356	47.38	41.9	1.131	40.30	41.0	1.202	50.11	38.7	1.296	40.48	39.1	1.050	44.93	43.0	1.044
April	54.50	39.8	1.370	48.00	42.1	1.138	52.57	43.2	1.217	50.19	38.4	1.302	40.83	38.6	1.060	45.46	43.7	1.041
May	55.64	40.4	1.377	49.09	42.7	1.148	51.08	41.9	1.220	50.27	37.5	1.339	39.21	37.5	1.036	45.75	43.9	1.041
June	58.00	41.5	1.398	50.03	42.9	1.165	53.14	44.0	1.207	50.71	38.9	1.303	42.15	39.5	1.069	47.20	45.0	1.052
July	57.92	41.7	1.391	50.01	42.7	1.168	57.73	45.9	1.258	51.94	39.4	1.321	41.83	39.3	1.078	49.39	46.1	1.076
August	53.66	39.2	1.368	49.77	42.5	1.169	57.52	45.6	1.261	50.73	38.2	1.326	42.98	40.2	1.088	45.18	42.5	1.059
September	52.61	37.8	1.391	51.11	42.8	1.191	54.79	43.7	1.254	56.21	41.3	1.362	44.20	40.7	1.087	47.05	43.8	1.073
October	54.96	39.4	1.395	50.89	42.4	1.197	51.04	41.5	1.229	52.12	42.5	1.226	43.93	40.7	1.077	44.45	41.8	1.061
November	55.53	39.3	1.413	50.41	41.9	1.202	50.69	41.9	1.210	60.20	47.9	1.257	44.67	41.4	1.081	45.48	42.6	1.069
December	55.49	38.7	1.435	50.88	42.0	1.210	50.86	40.0	1.272	51.58	38.2	1.349	43.52	40.6	1.074	46.18	42.9	1.080
1949: January	56.10	39.5	1.421	49.54	40.8	1.222	54.67	42.4	1.275	60.25	40.5	1.488	42.17	39.2	1.077	45.74	45.8	1.077
February	57.77	40.5	1.427	51.30	42.2	1.223	55.15	41.1	1.327	58.23	40.6	1.434	42.20	38.9	1.084	46.94	43.3	1.088
Year and month	Food—Continued									Tobacco manufactures								
	Malt liquors			Canning and preserving			Total: Tobacco manufactures			Cigarettes			Cigars			Tobacco (chewing and smoking) and snuff		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$35.01	38.3	\$0.916	\$16.77	37.0	\$0.464	\$16.84	35.4	\$0.476	\$20.88	37.2	\$0.561	\$14.59	34.7	\$0.419	\$17.53	34.1	\$0.514
1941: January	34.57	36.4	.952	16.67	33.0	.510	17.89	35.7	.501	22.38	37.3	.600	13.13	35.0	.432	18.60	34.9	.537
1948: February	62.25	40.9	1.520	42.73	38.4	1.118	35.04	36.2	.968	37.93	33.9	1.120	32.59	37.9	.857	35.89	37.2	.965
March	62.57	41.2	1.516	40.77	36.5	1.120	36.52	37.7	.968	42.99	38.2	1.124	32.12	37.5	.852	35.78	36.9	.971
April	65.24	42.5	1.532	41.63	37.0	1.130	37.19	38.2	.973	44.35	39.6	1.119	32.13	37.4	.857	36.32	37.1	.979
May	65.31	42.5	1.537	41.35	36.8	1.125	37.12	37.7	.984	44.32	38.9	1.139	31.80	36.9	.858	36.91	37.3	.991
June	67.74	42.9	1.578	41.16	38.0	1.090	37.86	37.8	1.003	45.84	39.1	1.172	31.73	36.8	.863	37.93	37.6	1.009
July	71.35	44.1	1.610	41.78	39.0	1.083	38.51	38.0	1.014	46.59	39.8	1.171	32.24	36.7	.877	37.59	37.1	1.015
August	69.14	42.9	1.612	39.50	36.1	1.105	39.26	39.0	1.008	48.39	41.5	1.167	32.29	37.1	.867	38.81	38.4	1.012
September	70.27	43.4	1.618	40.01	41.4	1.121	37.97	38.0	1.000	44.47	38.4	1.159	32.84	37.6	.870	39.11	38.2	1.023
October	66.11	41.1	1.606	45.32	39.5	1.153	38.78	38.9	.998	45.95	40.0	1.149	33.43	38.0	.876	39.63	39.2	1.011
November	67.45	41.1	1.639	39.02	35.4	1.107	38.37	37.8	1.016	43.61	36.6	1.198	34.63	38.8	.889	38.62	37.5	1.031
December	67.14	41.5	1.613	42.02	36.3	1.162	38.78	38.1	1.018	45.74	37.9	1.207	33.55	38.1	.878	39.31	39.2	1.003
1949: January	65.11	40.2	1.605	41.99	36.5	1.154	37.13	36.4	1.020	43.22	35.5	1.218	32.61	37.2	.871	36.90	36.3	1.019
February	66.41	40.4	1.631	43.62	38.1	1.146	36.08	35.3	1.022	42.29	34.7	1.218	31.43	35.7	.872	37.02	35.9	1.037

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.

## MANUFACTURING—Continued

Year and month	Paper and allied products															Printing, publishing, and allied industries		
	Total: Paper and allied products			Paper and pulp			Envelopes			Paper bags			Paper boxes			Total: Printing, publishing, and allied industries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$23.72	40.1	\$0.592	\$24.92	40.3	\$0.620							\$21.78	40.2	\$0.547	\$32.42	37.4	\$0.866
1941: January	25.16	40.0	.629	27.02	40.8	.662							22.26	38.8	.576	33.49	37.8	.886
1948: February	53.61	43.1	1.245	58.41	44.5	1.310	\$46.68	41.3	\$1.146	\$44.34	39.5	\$1.120	48.75	41.9	1.167	62.72	39.1	1.604
March	53.82	43.1	1.249	58.50	44.5	1.313	46.30	41.1	1.144	45.69	40.7	1.121	49.14	41.8	1.177	63.97	39.5	1.621
April	53.36	42.7	1.250	58.02	44.1	1.313	46.26	40.8	1.149	45.14	40.5	1.113	48.32	41.0	1.180	64.62	39.2	1.646
May	54.28	42.8	1.269	59.47	44.6	1.334	46.34	40.8	1.150	44.93	39.8	1.126	48.64	40.7	1.199	65.06	39.1	1.663
June	55.34	42.8	1.292	60.40	44.1	1.368	47.02	41.3	1.158	46.29	40.8	1.130	50.48	41.6	1.216	65.48	39.1	1.676
July	55.97	42.5	1.317	61.49	43.9	1.400	48.87	40.6	1.148	48.61	41.6	1.167	49.87	40.7	1.229	65.08	38.9	1.675
August	56.94	43.1	1.320	62.32	44.4	1.402	49.02	41.5	1.194	49.32	41.3	1.193	51.75	42.0	1.234	65.96	39.2	1.683
September	56.98	42.7	1.334	62.21	43.8	1.419	49.10	41.5	1.203	48.69	41.0	1.192	52.05	41.9	1.245	67.39	39.4	1.712
October	56.95	42.9	1.328	61.77	43.8	1.409	49.56	41.4	1.213	48.78	41.0	1.192	52.79	42.6	1.243	66.48	38.9	1.709
November	57.35	42.9	1.336	62.50	44.0	1.419	49.90	41.8	1.206	47.64	39.8	1.195	52.23	42.2	1.239	66.98	39.1	1.713
December	56.66	42.6	1.330	61.24	43.4	1.409	49.97	41.7	1.211	48.20	40.2	1.197	51.58	41.9	1.234	68.11	39.6	1.722
1949: January	55.44	41.5	1.336	60.24	42.7	1.409	48.61	40.2	1.222	47.58	39.5	1.203	49.58	40.1	1.241	66.55	38.6	1.724
February	55.23	41.4	1.334	59.58	42.4	1.405	47.97	40.2	1.208	48.09	40.2	1.194	49.39	40.0	1.243	66.87	38.5	1.737
Printing, publishing, and allied industries—Continued																		
	Newspapers and periodicals			Printing; book and job			Lithographing			Total: Chemicals and allied products			Paints, varnishes, and colors			Drugs, medicines, and insecticides		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$37.58	36.1	\$1.004	\$30.30	38.3	\$0.804				\$25.59	39.5	\$0.649	\$28.48	40.5	\$0.704	\$24.16	39.7	\$0.592
1941: January	38.15	35.4	1.052	31.64	39.6	.810				27.53	39.9	.690	29.86	40.3	.741	24.68	39.3	.619
1948: February	70.36	38.3	1.812	60.13	39.8	1.528	\$60.04	39.8	\$1.509	54.12	41.1	1.315	55.73	41.8	1.334	48.42	40.2	1.206
March	71.32	38.4	1.843	60.96	40.3	1.528	62.92	40.3	1.560	54.15	41.2	1.315	55.71	41.7	1.338	48.44	40.2	1.205
April	72.79	38.5	1.870	61.26	39.9	1.551	61.78	39.5	1.565	54.38	41.0	1.327	55.54	41.5	1.344	48.36	39.8	1.216
May	73.04	38.4	1.877	61.92	39.8	1.570	63.24	39.5	1.601	55.24	41.0	1.347	57.22	42.2	1.358	48.91	39.4	1.241
June	73.26	38.0	1.896	62.25	39.7	1.579	64.60	40.0	1.616	56.64	41.4	1.369	57.84	42.4	1.365	49.56	39.5	1.257
July	72.39	37.8	1.894	62.06	39.7	1.576	62.45	38.6	1.618	57.21	41.1	1.390	59.24	42.9	1.385	49.21	39.0	1.260
August	73.69	38.4	1.908	62.32	39.8	1.578	64.55	39.8	1.621	57.69	41.0	1.407	59.03	42.2	1.399	49.48	39.1	1.266
September	76.80	38.9	1.954	63.02	39.8	1.595	65.38	39.9	1.638	58.20	41.3	1.410	59.34	42.2	1.410	49.75	39.7	1.255
October	75.47	38.8	1.942	61.96	39.1	1.597	65.71	40.4	1.627	57.60	41.4	1.390	59.10	42.1	1.407	50.98	40.0	1.276
November	76.04	38.3	1.956	62.83	39.6	1.600	65.34	40.5	1.612	57.87	41.4	1.398	58.22	41.3	1.411	51.50	40.2	1.283
December	77.41	38.6	1.973	64.18	40.3	1.605	65.17	40.6	1.608	58.06	41.4	1.403	58.18	40.9	1.422	51.76	40.6	1.276
1949: January	73.56	37.3	1.954	63.65	39.6	1.618	63.66	38.6	1.660	57.93	41.0	1.413	57.36	40.7	1.429	52.82	40.6	1.312
February	74.56	37.5	1.966	63.66	39.3	1.635	64.64	38.6	1.671	57.81	40.8	1.417	58.19	40.4	1.441	52.87	40.6	1.314
Chemicals and allied products—Continued																		
	Soap			Rayon and allied products			Chemicals, not elsewhere classified			Explosives and safety fuses			Ammunition, small-arms <sup>1</sup>			Cottonseed oil		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$28.11	39.8	\$0.707	\$24.52	37.9	\$0.646	\$31.30	40.0	\$0.784	\$29.99	38.8	\$0.773	\$22.68	39.0	\$0.612	\$13.70	44.3	\$0.302
1941: January	29.58	40.0	.740	27.26	39.2	.696	33.10	40.3	.822	31.56	37.8	.835	24.05	38.6	.623	15.55	44.6	.338
1948: February	64.54	43.8	1.475	50.33	39.3	1.280	60.82	41.1	1.479	59.20	41.2	1.438	48.19	40.6	1.187	36.59	48.8	.750
March	62.83	42.8	1.467	50.68	39.5	1.284	60.84	41.0	1.483	58.24	40.5	1.437	49.04	40.7	1.204	37.95	50.3	.755
April	64.29	42.1	1.528	51.29	39.8	1.287	60.97	41.1	1.484	56.47	39.6	1.427	49.37	40.8	1.209	37.50	49.4	.759
May	64.99	42.1	1.543	51.46	39.7	1.296	61.48	41.2	1.493	59.34	40.6	1.462	50.28	41.3	1.218	38.07	49.0	.778
June	63.09	41.5	1.521	51.72	39.8	1.298	63.17	41.9	1.509	61.58	41.9	1.471	51.48	41.2	1.257	37.94	48.0	.791
July	62.44	41.0	1.523	53.38	40.1	1.330	63.49	41.3	1.539	61.65	41.8	1.473	53.05	41.2	1.294	38.77	47.6	.816
August	63.49	41.6	1.525	55.32	39.8	1.391	63.80	41.1	1.552	63.93	41.8	1.529	52.64	41.0	1.285	38.59	49.0	.787
September	64.76	42.3	1.532	55.31	39.5	1.400	65.27	40.9	1.596	64.01	41.9	1.527	53.61	41.5	1.291	41.64	52.3	.796
October	66.24	42.9	1.543	54.99	39.2	1.402	64.02	41.0	1.563	61.26	40.8	1.501	53.55	41.7	1.283	43.69	55.3	.790
November	66.79	42.3	1.579	55.55	39.5	1.406	64.65	41.1	1.574	60.71	40.3	1.508	53.46	41.4	1.291	43.56	55.5	.785
December	66.72	42.3	1.575	55.79	39.5	1.413	64.72	41.1	1.574	60.58	40.3	1.502	53.53	41.5	1.290	44.56	55.7	.800
1949: January	63.63	41.0	1.552	55.44	39.1	1.411	65.11	41.1	1.584	57.77	38.2	1.507	52.16	40.6	1.284	42.07	52.7	.797
February	64.16	41.1	1.561	55.21	39.0	1.411	64.95	40.7	1.596	60.39	40.1	1.506	53.35	41.0	1.301	40.74	50.7	.803

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.

## MANUFACTURING—Continued

Year and month	Chemicals and allied products—Con.			Products of petroleum and coal												Rubber products		
	Fertilizers			Total: Products of petroleum and coal			Petroleum refining			Coke and by-products			Roofing materials			Total: Rubber products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$14.71	35.8	\$0.412	\$32.62	36.5	\$0.894	\$34.97	36.1	\$0.974							\$27.84	36.9	\$0.754
1941: January.....	14.89	34.8	.429	32.46	36.6	.887	34.46	35.7	.970							30.38	39.0	.779
1948: February.....	34.96	39.7	.881	64.58	40.8	.581	67.64	40.0	1.689	\$57.06	40.9	\$1.395	\$58.67	44.1	\$1.332	54.70	38.5	1.421
March.....	36.25	41.6	.871	64.62	40.6	1.593	67.77	40.1	1.692	56.74	40.3	1.408	59.51	44.3	1.342	53.24	37.8	1.408
April.....	36.49	41.5	.880	64.45	40.3	1.600	68.50	40.2	1.704	53.54	38.4	1.395	58.84	44.0	1.338	53.39	37.8	1.412
May.....	37.40	41.4	.904	67.16	41.2	1.631	71.14	40.9	1.740	57.01	40.2	1.419	60.66	44.9	1.352	55.45	39.0	1.424
June.....	39.34	41.2	.954	67.18	40.7	1.650	70.96	40.2	1.763	57.84	40.3	1.437	61.09	44.7	1.367	57.14	39.7	1.439
July.....	40.82	42.1	.970	69.45	40.8	1.703	74.01	40.4	1.832	57.44	39.8	1.443	62.78	45.2	1.390	58.37	39.7	1.472
August.....	40.32	40.7	.990	70.71	41.2	1.716	75.13	41.0	1.832	59.97	39.9	1.503	63.58	44.9	1.415	60.47	40.3	1.500
September.....	40.37	40.4	1.001	68.72	39.3	1.748	72.09	38.5	1.873	60.59	39.1	1.551	63.67	44.5	1.431	59.31	39.4	1.504
October.....	39.37	39.9	.988	71.48	41.1	1.738	76.14	40.8	1.868	60.51	39.9	1.517	65.69	45.6	1.440	59.19	39.3	1.507
November.....	37.86	38.4	.985	71.17	40.4	1.763	76.35	40.3	1.894	60.03	39.5	1.521	60.58	42.5	1.425	58.27	38.6	1.508
December.....	38.69	39.5	.980	70.20	40.3	1.743	75.03	40.4	1.857	61.10	40.0	1.629	59.13	40.3	1.394	57.68	38.5	1.499
1949: January.....	38.25	39.8	.964	72.26	41.2	1.754	77.20	41.6	1.857	61.95	40.2	1.550	56.42	40.3	1.402	56.89	37.9	1.501
February.....	38.12	40.6	.939	70.05	40.1	1.747	74.34	40.1	1.853	61.26	40.0	1.543	56.62	40.2	1.410	56.51	37.6	1.503
Rubber products—Continued																		
Rubber tires and inner tubes			Rubber boots and shoes			Rubber goods, other			Total: Miscellaneous industries			Instruments (professional and scientific), and fire-control equipment			Pianos, organs, and parts			
1939: Average.....	\$33.36	35.0	\$0.957	\$22.80	37.5	\$0.607	\$23.34	38.9	\$0.605	\$24.48	39.2	\$0.624						
1941: January.....	36.67	37.7	.975	26.76	41.9	.639	24.97	39.4	.639	25.35	39.3	.645	\$35.33	45.7	\$0.773			
1948: February.....	58.22	36.0	1.613	50.65	41.7	1.214	51.33	40.8	1.258	50.11	40.8	1.230	57.20	40.0	1.388	\$51.88	40.0	\$1.305
March.....	55.54	34.8	1.599	51.42	42.2	1.219	50.60	40.4	1.251	49.84	40.6	1.229	57.54	40.1	1.407	51.82	40.3	1.288
April.....	58.54	35.3	1.603	50.59	41.7	1.214	50.16	39.9	1.256	49.60	40.4	1.228	58.16	40.5	1.413	52.34	40.8	1.286
May.....	61.15	37.4	1.636	50.61	41.7	1.214	50.34	40.0	1.260	50.19	40.3	1.244	58.35	40.2	1.430	52.36	40.8	1.286
June.....	63.96	38.8	1.651	50.69	41.7	1.215	51.15	40.2	1.272	50.92	40.3	1.262	57.73	39.7	1.434	52.11	40.9	1.289
July.....	66.30	39.3	1.684	52.12	42.3	1.231	51.07	39.4	1.296	50.02	39.4	1.269	56.68	39.7	1.448	52.07	40.9	1.283
August.....	68.29	39.5	1.730	52.53	41.5	1.266	53.70	40.9	1.312	51.24	40.3	1.271	58.44	40.0	1.458	52.42	40.7	1.293
September.....	65.27	37.7	1.732	53.38	41.6	1.283	54.35	40.8	1.333	51.63	40.3	1.280	59.26	40.1	1.472	52.54	39.9	1.322
October.....	64.82	37.2	1.734	53.86	42.2	1.278	55.08	40.8	1.350	51.86	40.6	1.279	60.90	40.4	1.487	53.73	40.3	1.339
November.....	62.79	36.2	1.735	54.29	41.6	1.305	54.61	40.5	1.347	52.47	40.8	1.287	61.80	40.9	1.487	55.41	40.8	1.365
December.....	61.10	35.6	1.721	55.23	42.4	1.303	54.49	40.5	1.346	52.79	40.5	1.302	62.18	40.7	1.504	55.26	40.4	1.375
1949: January.....	60.78	35.3	1.721	52.24	40.3	1.297	53.93	40.1	1.345	52.15	39.9	1.307	62.51	40.6	1.515	52.24	38.9	1.342
February.....	61.21	35.5	1.723	48.81	37.8	1.290	53.30	39.8	1.342	52.15	39.9	1.307	62.86	40.7	1.519	52.14	38.5	1.353

## NONMANUFACTURING

Year and month	Mining																	
	Coal						Metal											
	Anthracite <sup>1</sup>			Bituminous <sup>1</sup>			Total: Metal			Iron			Copper			Lead and zinc		
1939: Average.....	\$25.67	27.7	\$0.923	\$23.88	27.1	\$0.886	\$28.93	40.9	\$0.708	\$26.36	35.7	\$0.738	\$28.08	41.9	\$0.679	\$26.39	38.7	\$0.683
1941: January.....	25.13	27.0	.925	26.00	29.7	.885	30.63	41.0	.747	29.26	39.0	.750	30.93	41.8	.749	28.61	38.2	.749
1948: February.....	65.78	36.2	1.817	70.54	38.7	1.826	58.79	42.9	1.370	56.40	41.4	1.361	62.84	45.8	1.373	59.16	41.9	1.412
March.....	71.59	40.3	1.776	74.84	40.6	1.842	57.90	42.4	1.366	56.04	41.3	1.357	61.25	44.7	1.371	59.04	41.6	1.415
April.....	55.05	32.1	1.708	49.53	27.0	1.821	57.84	42.1	1.373	55.48	40.7	1.364	61.04	44.6	1.369	59.58	41.7	1.430
May.....	69.89	39.4	1.774	74.08	40.3	1.841	59.26	42.8	1.384	57.91	42.1	1.377	61.73	45.0	1.373	60.27	41.8	1.442
June.....	68.91	39.4	1.749	73.87	39.9	1.850	58.79	42.4	1.386	57.41	41.5	1.383	61.33	44.5	1.378	60.42	41.7	1.449
July.....	55.11	31.7	1.736	67.62	34.2	1.936	58.00	40.6	1.427	55.30	40.3	1.371	63.99	43.6	1.468	53.11	35.3	1.505
August.....	72.77	38.3	1.901	78.10	39.4	1.967	62.49	42.9	1.455	59.21	41.6	1.424	67.62	45.1	1.498	64.95	42.9	1.515
September.....	69.35	36.6	1.897	75.51	37.9	1.970	62.07	41.4	1.501	60.77	40.4	1.504	64.67	42.8	1.513	63.26	41.4	1.529
October.....	73.74	38.7	1.904	76.40	38.6	1.959	64.18	42.7	1.502	63.56	42.2	1.506	66.62	44.6	1.494	64.19	41.5	1.544
November.....	60.90	33.4	1.824	73.52	37.1	1.951	63.84	42.5	1.504	61.71	41.5	1.487	68.26	44.8	1.525	66.04	42.3	1.560
December.....	63.39	34.0	1.862	75.79	38.5	1.960	65.50	43.3	1.513	62.45	41.6	1.502	70.36	46.0	1.530	67.77	43.3	1.569
1949: January.....	67.11	36.0	1.873	76.84	39.3	1.949	65.79	43.0	1.530	63.41	42.2	1.504	70.15	45.3	1.549	67.70	42.2	1.613
February.....	48.14	26.2	1.841	75.65	38.0	1.964	64.47	42.5	1.517	63.29	42.2	1.500	68.23	43.5	1.528	66.19	41.9	1.590

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries <sup>1</sup>—Con.

## NONMANUFACTURING—Continued

Year and month	Mining—Continued						Public utilities											
	Quarrying and nonmetallic			Crude petroleum and natural gas production			Street railways and busses *			Telephone *			Telegraph *			Electric light and power		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$21.61	39.2	\$0.550	\$34.09	38.3	\$0.873	\$33.13	45.9	\$0.714	\$31.94	39.1	\$0.822				\$34.38	39.6	\$0.869
1941: January.....	22.06	38.2	0.576	33.99	37.7	0.885	33.63	45.3	.731	32.52	39.7	.824				35.49	39.4	.903
1948: February.....	50.39	42.1	1.199	65.77	40.4	1.638	62.15	47.7	1.295	47.82	38.7	1.238	\$56.26	44.5	\$1.265	59.60	42.2	1.428
March.....	51.04	42.9	1.190	63.44	39.7	1.605	61.36	47.3	1.295	47.31	38.7	1.223	56.19	44.4	1.267	58.27	41.6	1.408
April.....	52.83	43.7	1.206	63.96	40.0	1.599	60.10	46.6	1.293	47.56	38.8	1.225	59.45	44.1	1.349	59.10	41.8	1.427
May.....	54.73	44.4	1.226	65.88	40.2	1.646	60.32	46.8	1.302	48.82	39.4	1.240	62.12	45.0	1.381	59.83	41.7	1.444
June.....	55.38	45.0	1.228	64.88	39.5	1.636	61.21	46.8	1.315	48.67	39.5	1.232	61.63	45.1	1.367	60.41	41.8	1.455
July.....	55.83	44.1	1.266	67.17	40.1	1.676	62.01	47.0	1.328	49.19	39.8	1.237	63.10	45.8	1.379	61.46	41.8	1.483
August.....	58.72	45.9	1.281	69.59	41.3	1.682	62.68	47.5	1.327	48.35	39.4	1.229	62.59	45.6	1.373	61.46	42.1	1.472
September.....	57.82	45.0	1.284	67.58	39.6	1.711	62.29	46.3	1.355	49.21	39.4	1.250	61.83	44.8	1.379	61.75	41.6	1.490
October.....	59.08	45.8	1.288	67.67	39.7	1.716	63.40	46.4	1.380	49.81	39.5	1.263	61.46	44.5	1.380	62.38	41.6	1.509
November.....	57.22	44.3	1.291	68.80	39.6	1.734	62.51	46.1	1.383	51.37	39.4	1.305	61.44	44.5	1.381	62.57	41.8	1.508
December.....	56.93	44.1	1.290	69.12	40.0	1.730	63.26	46.4	1.392	49.95	38.7	1.290	61.20	44.2	1.385	62.72	41.9	1.508
1949: January.....	54.98	42.6	1.287	71.94	41.1	1.765	62.91	45.6	1.414	49.91	38.4	1.301	61.66	44.4	1.388	63.09	41.9	1.517
February.....	54.26	42.2	1.287	69.41	40.0	1.751	62.93	46.9	1.383	51.02	38.7	1.321	62.03	44.6	1.390	62.87	41.5	1.520
Trade																		
	Wholesale						Retail											
							Total: Retail			Food			General merchandise			Apparel		
1939: Average.....	\$29.85	41.7	\$0.715	\$21.17	43.0	\$0.536	\$23.37	43.9	\$0.525	\$17.80	38.8	\$0.454	\$21.23	38.8	\$0.543	\$28.62	44.5	\$0.660
1941: January.....	30.59	40.8	.756	21.53	42.9	.549	23.78	43.6	.537	18.22	38.8	.466	21.89	39.0	.560	27.96	43.9	.666
1948: February.....	55.87	41.1	1.343	38.33	40.0	1.050	46.33	39.7	1.119	32.09	35.7	.883	37.94	37.3	1.002	53.05	43.9	1.253
March.....	55.17	40.9	1.334	38.89	39.8	1.044	46.14	40.0	1.123	32.28	35.3	.878	37.50	36.2	1.025	51.30	43.7	1.242
April.....	55.84	41.0	1.346	39.27	39.8	1.055	46.66	39.6	1.150	33.17	35.3	.895	38.23	36.6	1.030	50.24	43.5	1.261
May.....	56.61	41.2	1.363	39.84	39.9	1.064	47.08	39.6	1.148	34.04	35.2	.907	38.54	36.5	1.040	50.96	43.4	1.281
June.....	56.00	41.1	1.353	40.52	40.3	1.070	48.52	40.6	1.159	35.04	35.8	.915	39.33	36.9	1.049	50.86	43.4	1.281
July.....	56.54	41.2	1.365	41.19	40.8	1.077	49.44	41.0	1.162	35.30	36.5	.915	39.48	37.2	1.045	51.31	43.3	1.284
August.....	57.51	41.3	1.379	41.19	41.0	1.080	49.35	41.1	1.160	35.03	36.5	.914	39.17	37.1	1.043	51.33	43.7	1.280
September.....	57.67	41.2	1.378	40.48	40.2	1.086	48.86	40.3	1.177	34.20	36.5	.903	38.96	36.8	1.050	50.87	43.2	1.290
October.....	57.54	41.0	1.381	40.32	39.7	1.080	48.15	39.8	1.172	34.10	35.9	.902	39.43	36.3	1.063	51.79	42.9	1.297
November.....	57.60	41.2	1.383	39.67	39.5	1.084	48.69	39.4	1.186	33.77	35.7	.907	38.81	36.2	1.060	51.65	43.0	1.306
December.....	57.69	41.3	1.380	40.62	40.2	1.072	49.47	39.9	1.191	35.69	37.3	.894	39.68	37.1	1.058	54.17	43.8	1.320
1949: January.....	58.41	41.2	1.399	41.79	40.0	1.110	49.92	39.5	1.226	35.54	36.5	.921	40.20	37.0	1.063	52.90	43.0	1.332
February.....	57.91	40.8	1.393	41.56	40.0	1.104	49.92	39.3	1.230	34.19	36.3	.911	39.03	37.4	1.039	52.11	43.0	1.312

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries<sup>1</sup>—Con.

## NONMANUFACTURING—Continued

Year and month	Trade—Continued						Finance <sup>7</sup>		Service								
	Retail—Continued						Bro- kerage	Insur- ance	Hotels <sup>8</sup> (year-round)			Power laundries			Cleaning and dyeing		
	Automotive			Lumber and build- ing materials													
	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings			Avg. wkly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings
1939: Average	\$27.07	47.6	\$0.571	\$26.22	42.7	\$0.619	\$36.63	\$36.32	\$15.25	46.6	\$0.324	\$17.69	42.7	\$0.417	\$19.96	41.8	\$0.490
1941: January	28.26	46.8	.606	26.16	41.7	.634	38.25	37.52	15.65	45.9	.338	18.37	42.9	.429	19.92	41.9	.488
1948: February	53.03	45.0	1.186	49.56	42.1	1.174	63.37	56.63	31.19	44.6	.695	33.54	41.9	.802	36.55	40.5	.923
March	52.98	44.6	1.202	49.24	42.5	1.170	62.60	55.51	30.96	44.0	.695	33.74	42.0	.805	37.96	41.5	.924
April	54.53	45.5	1.216	49.64	42.6	1.175	65.76	54.94	31.59	44.2	.700	34.29	42.2	.810	39.18	42.1	.933
May	54.49	45.5	1.220	50.32	42.8	1.193	71.15	56.22	31.70	44.2	.707	34.22	41.8	.817	39.13	42.0	.936
June	54.65	45.5	1.221	51.08	43.2	1.202	69.35	54.75	31.88	44.1	.711	34.36	41.8	.823	40.14	42.4	.947
July	55.03	45.1	1.237	51.31	42.8	1.216	68.12	55.22	32.04	44.0	.714	34.55	42.2	.820	39.02	41.7	.942
August	56.04	45.6	1.251	52.51	43.4	1.220	65.42	55.09	32.34	44.9	.709	33.70	41.1	.822	37.55	39.8	.951
September	55.87	45.3	1.247	52.00	42.4	1.231	63.59	54.35	32.21	43.9	.725	34.56	41.8	.828	39.36	41.1	.963
October	55.53	45.4	1.241	52.68	42.7	1.233	66.27	53.97	32.45	44.2	.726	34.16	41.3	.829	39.42	41.0	.970
November	55.99	45.3	1.265	51.92	42.0	1.235	65.38	55.12	32.52	44.1	.734	34.51	41.5	.836	39.01	40.9	.962
December	56.44	45.7	1.250	52.85	42.5	1.230	66.97	56.10	33.06	44.1	.739	34.72	41.7	.836	39.97	41.4	.968
1949: January	56.55	45.5	1.260	53.09	42.0	1.254	66.91	57.20	33.05	43.8	.743	35.25	42.0	.841	39.71	41.0	.972
February	56.03	45.8	1.250	53.09	42.1	1.262	66.60	57.25	33.14	43.7	.745	34.64	41.3	.842	38.57	39.8	.964

<sup>1</sup> These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during the pay period ending nearest the 15th of the month. As not all reporting firms supply man-hour data, the average weekly hours and average hourly earnings for individual industries are based on a slightly smaller sample than are average weekly earnings.

For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production and related workers only. For the remaining industries, unless otherwise noted, the data relate to all non-supervisory employees and working supervisors. Data for 1939 and January 1941, for some industries, are not strictly comparable with the periods currently presented. All series, by month, are available upon request to the Bureau of Labor Statistics. Such requests should specify the series desired. Data for the two current months are subject to revision without notation. Revised figures for earlier months are identified by an asterisk for the first month's publication of such data.

<sup>2</sup> New series beginning with month and year shown below; not comparable with data shown for earlier periods:

Glass products made from purchased glass.—May 1948; comparable

April data are \$44.36 and \$1.121.

Ammunition, small-arms.—June 1948; comparable May data are \$1.222.

April 1948 data reflect work stoppages.

<sup>4</sup> Data include private and municipal street-railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.

<sup>5</sup> Prior to April 1945 the averages of hours and earnings related to all employees except executives; beginning with April 1945 these averages reflect mainly the hours and earnings of employees subject to the Fair Labor Standards Act. At the same time the reporting sample was expanded to include a greater number of employees of "long lines." The April 1945 data are \$40.72, 42.9 hours, and \$0.952 on the old basis, and \$37.50, 40.6 hours, and \$0.926 on the new basis.

<sup>6</sup> Data relate to all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

<sup>7</sup> Data on average weekly hours and average hourly earnings are not available.

<sup>8</sup> Money payments only; additional value of board, room, uniforms, and tips, not included.

NOTE: Explanatory notes outlining briefly the concepts, methodology, size of the reporting sample, and sources used in preparing the data presented in tables C-1 through C-5 are contained in the Bureau's monthly mimeographed release, "Hours and Earnings—Industry Report," which is available upon request.

TABLE C-2: Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas <sup>1</sup>

Year and month	Arizona						California						Connecticut			Delaware		
	State			State			Los Angeles			San Francisco Bay			State			State		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: February.....	\$54.48	42.3	\$1.288	\$58.22	39.1	\$1.488	\$58.19	39.4	\$1.476	\$60.13	38.7	\$1.553	\$54.54	41.9	\$1.30	\$46.36	39.5	\$1.172
March.....	54.98	42.0	1.309	57.51	38.6	1.491	58.11	39.2	1.482	58.16	37.6	1.547	54.94	41.9	1.31	47.11	40.0	1.177
April.....	56.71	42.8	1.325	57.56	38.5	1.495	58.09	39.1	1.485	58.56	37.8	1.548	54.21	41.4	1.28	47.49	40.4	1.177
May.....	57.43	42.7	1.345	59.05	38.9	1.516	59.02	39.3	1.501	60.65	38.7	1.567	53.52	40.9	1.31	46.51	39.9	1.165
June.....	55.11	41.5	1.328	59.69	39.0	1.532	58.75	39.0	1.507	61.20	38.5	1.590	54.51	41.1	1.33	47.37	40.0	1.183
July.....	55.51	41.0	1.354	59.81	38.8	1.542	59.27	39.0	1.521	61.95	38.6	1.604	54.86	40.8	1.34	47.75	39.6	1.207
August.....	55.97	41.4	1.352	60.51	38.9	1.555	60.94	39.6	1.538	61.17	38.2	1.600	56.02	41.2	1.36	46.62	40.1	1.161
September.....	57.63	41.7	1.382	60.36	38.7	1.558	59.83	38.6	1.552	61.01	38.3	1.594	56.33	41.0	1.37	46.62	41.6	1.122
October.....	57.49	41.9	1.372	61.72	39.6	1.560	60.56	39.1	1.550	64.37	39.9	1.614	56.64	41.1	1.38	48.24	40.2	1.200
November.....	57.12	41.3	1.383	60.54	38.4	1.579	60.87	39.1	1.558	61.99	37.6	1.648	56.78	41.2	1.38	49.05	39.3	1.248
December.....	56.88	41.1	1.364	61.35	38.7	1.586	61.17	39.0	1.566	63.99	38.8	1.651	57.04	41.1	1.39	51.08	40.2	1.260
1949: January.....	55.32	39.8	1.390	61.45	38.5	1.596	61.03	38.7	1.577	64.41	38.8	1.660	55.96	40.4	1.38	51.38	40.5	1.260
February.....	56.02	40.3	1.390	61.61	38.7	1.592	61.07	38.9	1.570	64.00	38.6	1.658	54.67	39.7	1.38	50.98	39.6	1.260
Delaware—Con.			Florida			Illinois						Indiana			Massachusetts			
Wilmington			State			State			Chicago city			State			State			
1948: February.....	\$54.50	40.7	\$1.331	\$40.92	42.8	\$0.956	\$57.58	41.6	\$1.38	\$59.47	-----	-----	\$55.26	40.4	\$1.367	\$51.43	-----	-----
March.....	55.43	41.1	1.343	39.06	40.6	.962	56.98	41.2	1.38	58.60	-----	-----	55.96	40.7	1.375	51.39	-----	-----
April.....	55.68	41.1	1.345	40.25	41.8	.963	57.14	40.9	1.40	58.85	-----	-----	56.13	40.5	1.385	51.07	-----	-----
May.....	55.27	40.9	1.361	41.22	42.1	.979	56.77	40.3	1.41	58.79	40.7	\$1.44	55.53	40.1	1.386	51.28	-----	-----
June.....	55.99	40.7	1.384	41.20	42.3	.974	58.06	41.0	1.41	59.76	41.1	1.45	57.19	40.6	1.407	51.76	-----	-----
July.....	57.14	40.6	1.419	41.44	42.6	.973	57.92	40.5	1.43	59.70	40.7	1.47	57.51	40.2	1.431	51.44	-----	-----
August.....	58.15	40.7	1.424	40.32	41.1	.981	59.26	40.9	1.45	61.51	41.1	1.50	58.37	40.6	1.436	52.29	-----	-----
September.....	57.03	40.5	1.422	41.13	41.8	.984	60.01	41.0	1.46	62.03	41.3	1.50	57.75	40.5	1.427	52.42	-----	-----
October.....	58.78	41.1	1.429	41.17	41.5	.992	60.43	41.0	1.47	62.06	41.2	1.51	59.93	40.9	1.466	50.74	-----	-----
November.....	58.35	40.4	1.442	41.11	42.6	.965	60.05	40.6	1.48	61.78	40.9	1.51	59.95	40.8	1.470	50.87	-----	-----
December.....	61.07	41.6	1.468	42.16	44.1	.956	60.60	41.0	1.48	62.30	41.2	1.51	60.58	40.9	1.480	52.13	-----	-----
1949: January.....	61.49	42.2	1.458	42.48	44.2	.961	59.81	40.4	1.48	61.20	40.5	1.51	59.30	40.2	1.476	51.47	-----	-----
February.....	60.82	41.3	1.473	41.72	43.5	.960	59.44	40.1	1.48	60.58	40.1	1.51	58.96	40.1	1.471	51.69	-----	-----
Michigan			Minnesota									New Jersey						
State			State			Duluth			Minneapolis			St. Paul			State			
1948: February.....	\$59.02	39.7	\$1.489	\$51.74	41.1	\$1.259	\$53.45	41.5	\$1.288	\$51.29	40.8	\$1.257	\$53.67	41.7	\$1.287	\$56.71	41.2	\$1.377
March.....	59.68	40.1	1.488	51.58	41.0	1.258	52.07	40.4	1.289	50.52	40.0	1.263	52.48	41.1	1.277	56.71	41.1	1.379
April.....	59.04	39.7	1.489	52.22	40.8	1.280	51.48	40.0	1.287	50.94	40.3	1.264	53.03	41.3	1.284	56.29	40.8	1.380
May.....	56.75	38.0	1.500	53.19	41.3	1.288	52.25	40.1	1.303	51.67	40.4	1.279	52.54	40.6	1.294	56.49	40.7	1.387
June.....	60.81	39.7	1.539	52.46	40.7	1.289	52.59	39.9	1.318	53.42	40.5	1.319	52.32	40.0	1.308	57.38	40.9	1.400
July.....	62.57	39.9	1.568	53.78	41.4	1.299	57.43	41.5	1.384	53.99	40.5	1.333	54.89	41.0	1.339	57.73	40.7	1.419
August.....	63.44	40.1	1.584	53.07	40.7	1.303	58.98	42.1	1.401	54.81	41.0	1.337	56.03	41.2	1.360	58.57	40.8	1.435
September.....	63.32	39.4	1.610	53.70	41.0	1.311	54.78	39.1	1.401	53.38	39.6	1.348	55.35	40.7	1.360	59.25	40.9	1.448
October.....	64.86	40.4	1.608	54.87	41.0	1.338	57.14	40.7	1.404	54.18	40.1	1.351	55.50	40.6	1.367	59.01	40.6	1.452
November.....	64.40	39.7	1.636	55.79	41.5	1.344	56.04	40.0	1.401	54.54	40.4	1.350	55.73	40.8	1.366	59.03	40.5	1.457
December.....	64.81	40.3	1.611	56.14	41.5	1.353	57.11	40.3	1.417	54.81	40.6	1.350	55.23	40.4	1.367	59.97	40.9	1.465
1949: January.....	65.03	39.9	1.633	55.49	40.8	1.360	55.37	39.3	1.410	53.16	39.0	1.360	55.74	40.1	1.390	59.07	40.4	1.467
February.....	64.64	40.0	1.617	54.96	40.3	1.370	56.72	39.8	1.430	54.80	40.0	1.370	55.90	40.1	1.390	58.89	40.2	1.465



TABLE C-2. Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas<sup>1</sup>—Continued

Year and month	New York																	
	State			Albany-Schenectady-Troy			Buffalo			New York City			Rochester			Syracuse		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: February	\$56.87	39.7	\$1.43	\$53.20	39.5	\$1.35	\$57.15	40.6	\$1.41	\$61.65	38.4	\$1.62	\$55.09	40.2	\$1.37	\$54.54	41.6	\$1.31
March	56.88	39.8	1.43	54.98	40.2	1.37	56.99	40.5	1.41	60.53	38.3	1.60	55.49	40.2	1.38	54.74	41.8	1.31
April	55.49	39.3	1.41	54.94	40.0	1.37	56.56	40.0	1.41	58.19	37.7	1.55	55.58	40.1	1.39	55.16	41.9	1.32
May	55.94	39.2	1.43	55.27	39.7	1.39	57.59	40.2	1.43	59.09	37.6	1.57	55.33	39.8	1.39	54.20	41.2	1.31
June	56.97	39.5	1.44	55.95	40.0	1.40	58.32	40.2	1.45	60.09	37.8	1.59	57.74	40.1	1.44	55.72	42.0	1.33
July	57.57	39.4	1.46	56.56	39.3	1.44	59.34	40.5	1.47	61.61	37.9	1.64	57.39	40.1	1.43	54.62	40.6	1.35
August	58.36	39.4	1.48	58.54	40.1	1.46	60.70	40.7	1.49	62.39	37.9	1.66	57.61	39.9	1.45	55.78	40.9	1.36
September	59.39	39.6	1.50	59.91	40.5	1.48	61.61	40.5	1.52	63.22	37.9	1.68	58.37	40.2	1.45	57.24	41.5	1.38
October	57.47	38.4	1.50	58.04	39.8	1.46	61.71	40.5	1.53	58.86	35.6	1.66	57.88	39.7	1.46	56.78	41.0	1.39
November	59.42	39.5	1.51	61.10	41.3	1.48	61.71	40.6	1.52	62.59	37.7	1.67	58.56	40.0	1.46	56.42	40.7	1.38
December	59.73	39.6	1.51	61.96	41.2	1.50	62.13	40.7	1.53	62.63	37.9	1.66	58.25	39.6	1.47	55.87	39.9	1.40
1949: January	59.22	38.9	1.52	59.81	40.3	1.49	60.90	39.9	1.53	62.79	37.5	1.69	58.04	39.7	1.46	56.28	40.6	1.39
February	59.13	38.9	1.52	57.81	39.8	1.45	60.81	39.9	1.52	63.40	37.6	1.70	57.82	39.4	1.47	56.31	40.7	1.38
Year and month	North Carolina			Oklahoma			Pennsylvania											
	State			State			State			Allentown-Bethlehem			Philadelphia			Pittsburgh		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: February	\$38.79	37.6	\$1.031				\$49.50	39.9	\$1.242	\$51.58	39.7	\$1.306	\$54.78	40.4	\$1.339	\$56.84	39.0	\$1.425
March	41.30	40.0	1.032				49.91	40.0	1.246	51.10	39.5	1.299	54.91	41.3	1.310	57.96	39.9	1.421
April	40.54	39.4	1.028				49.63	39.6	1.252	49.25	37.8	1.303	55.22	40.3	1.355	57.55	39.5	1.437
May	40.12	38.9	1.031				50.32	39.9	1.260	52.65	38.8	1.340	55.19	40.1	1.356	58.54	40.3	1.433
June	39.80	38.4	1.036	\$53.15	42.5	\$1.250	50.38	39.8	1.267	51.15	38.8	1.349	55.44	40.1	1.364	58.55	39.7	1.455
July	39.20	37.8	1.037	53.03	41.5	1.277	50.25	39.2	1.282	51.78	38.4	1.372	55.60	39.9	1.374	58.07	39.1	1.490
August	40.36	38.1	1.059	55.30	42.7	1.296	52.20	39.5	1.320	52.88	38.5	1.392	56.88	40.0	1.404	62.34	40.0	1.566
September	40.75	37.7	1.082	55.70	42.2	1.320	52.73	39.5	1.335	54.06	38.8	1.407	57.37	40.1	1.415	62.32	39.2	1.586
October	41.58	38.4	1.084	54.74	42.6	1.286	53.39	39.9	1.339	54.65	39.5	1.386	57.42	39.9	1.422	63.46	40.3	1.575
November	41.40	38.0	1.090	54.15	41.7	1.297	53.24	39.7	1.342	53.77	38.8	1.392	57.78	40.2	1.438	62.51	39.6	1.578
December	41.58	38.1	1.093	55.46	42.3	1.310	53.39	39.7	1.344	53.44	38.7	1.385	57.96	40.2	1.443	62.73	39.7	1.580
1949: January	40.50	37.0	1.096	54.82	41.0	1.337	52.94	39.2	1.350	54.34	38.9	1.406	57.20	39.4	1.452	62.74	39.5	1.587
February	40.36	37.0	1.091	54.87	41.2	1.332	52.65	39.1	1.345	53.63	38.7	1.391	56.30	39.4	1.433	61.84	39.6	1.559
Year and month	Pennsylvania—Continued						Rhode Island			Tennessee			Texas			Utah		
	Reading-Lebanon			York-Adams			State			State			State			State		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: February	\$52.34	40.5	\$1.306	\$44.89	41.0	\$1.107	\$50.22	41.2	\$1.218	\$41.55	40.7	\$1.021	*\$48.71	*41.7	*\$1.168	\$51.97	40.6	\$1.28
March	52.31	40.5	1.304	45.49	41.3	1.115	50.36	41.3	1.220	41.86	40.8	1.026	*48.43	*41.5	*1.167	52.50	40.7	1.29
April	51.98	40.2	1.307	44.72	41.0	1.113	49.82	40.7	1.225	41.67	40.3	1.034	50.19	42.5	1.181	50.05	39.1	1.28
May	52.25	40.6	1.305	46.49	41.8	1.132	49.60	40.4	1.228	41.67	40.3	1.034	52.10	43.2	1.206	53.04	40.8	1.30
June	53.43	40.7	1.317	46.34	41.9	1.132	49.82	40.1	1.241	42.03	40.3	1.043	*53.05	*43.7	*1.214	53.99	40.9	1.32
July	51.71	39.5	1.324	46.26	41.2	1.147	49.52	39.9	1.242	43.13	40.5	1.065	51.54	42.7	1.207	51.73	40.1	1.29
August	53.74	39.7	1.362	46.76	41.4	1.150	47.85	39.0	1.228	43.09	40.5	1.064	53.39	43.3	1.233	53.28	41.3	1.29
September	54.26	39.4	1.393	45.49	40.5	1.136	48.37	39.0	1.242	42.85	39.9	1.074	*53.71	*42.8	*1.255	53.45	40.8	1.31
October	55.39	40.1	1.388	47.33	42.0	1.146	44.87	36.1	1.244	43.63	40.4	1.080	55.09	43.9	1.255	53.73	39.8	1.35
November	56.23	40.4	1.396	46.87	41.3	1.156	47.57	37.9	1.254	43.80	40.0	1.095	53.11	42.8	1.241	56.99	41.3	1.38
December	54.80	39.6	1.390	47.43	40.9	1.179	49.18	39.2	1.254	43.98	40.2	1.094	53.93	42.9	1.257	56.56	40.4	1.40
1949: January	52.95	38.8	1.374	47.17	40.3	1.189	48.26	38.8	1.245	43.80	39.5	1.109	53.42	42.5	1.257	58.87	40.6	1.45
February	54.01	39.5	1.376	46.32	40.3	1.176	48.29	38.8	1.245	42.90	39.0	1.110	53.09	41.9	1.267	56.63	39.6	1.43

TABLE C-2: Hours and Gross Earnings of Production Workers in Manufacturing Industries for Selected States and Areas<sup>1</sup>—Continued

Year and month	Wisconsin																	
	State			Kenosha city			LaCrosse city			Madison city			Milwaukee county			Racine city		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: February.....	54.63	41.9	1.303	54.11	37.5	1.444	49.25	40.0	1.233	50.11	38.7	1.290	58.20	41.3	1.411	60.27	41.5	1.451
March.....	55.56	42.3	1.313	60.41	41.4	1.460	50.17	40.3	1.245	50.97	39.5	1.299	59.09	41.7	1.418	*61.49	41.8	*1.470
April.....	55.11	42.0	1.314	57.12	39.6	1.443	49.60	39.7	1.250	55.54	41.4	1.343	58.77	41.4	1.419	*60.64	*41.3	1.470
May.....	55.73	42.0	1.326	58.38	40.1	1.455	49.60	39.7	*1.249	59.10	42.9	1.377	58.82	41.0	1.434	*62.03	*41.8	1.485
June.....	56.69	42.1	1.347	*62.89	41.1	*1.531	*49.67	39.5	*1.257	58.12	42.0	1.385	60.20	41.2	1.461	*63.35	*42.1	*1.504
July.....	54.97	41.6	1.320	*65.92	*40.1	*1.644	50.13	39.6	1.267	54.70	39.7	1.377	60.92	41.1	1.481	63.46	42.0	1.509
August.....	56.46	41.9	1.346	61.38	39.5	1.552	53.35	39.2	1.362	54.15	39.5	1.372	61.44	41.3	1.499	*65.39	42.1	*1.554
September.....	55.74	41.5	1.342	61.79	40.0	1.545	54.32	39.7	1.369	*52.56	38.5	*1.364	61.81	40.8	1.515	*65.18	41.6	1.568
October.....	58.04	42.0	*1.384	61.73	39.7	1.554	52.61	38.7	1.361	54.55	40.1	1.362	63.09	41.5	1.521	65.28	41.4	1.575
November.....	58.16	41.9	1.388	60.72	39.2	1.548	53.92	39.4	1.369	56.27	41.2	1.364	62.69	41.3	1.516	65.78	41.5	1.585
December.....	58.15	41.7	1.396	61.22	39.3	1.558	55.24	40.1	1.378	57.98	40.9	1.416	62.54	41.2	1.516	64.83	40.9	1.588
1949: January.....	57.33	40.9	1.400	59.30	38.2	1.554	55.25	39.9	1.385	55.16	39.3	1.403	61.57	40.5	1.520	65.07	40.9	1.593
February.....	57.18	40.9	1.397	61.03	39.2	1.557	55.66	39.8	1.400	53.52	38.5	1.390	60.96	40.2	1.517	64.81	40.7	1.591

<sup>1</sup> State and area hours and gross earnings are prepared by various cooperating State agencies. Owing to differences in methodology the data may not be strictly comparable among the States or with the national averages. Variations in earnings among the States and areas reflect, to some extent, differences with respect to industrial composition. Revised data for all ex-

cept the two most recent months are identified by an asterisk for the first months publication of such data. A number of States also make available more detailed industry data, as well as information for earlier periods which may be secured directly upon request to the appropriate State agency as listed in footnote 1, table A-5.

TABLE C-3: Estimated Average Hourly Earnings, Gross and Exclusive of Overtime, of Production Workers in Manufacturing Industries<sup>1</sup>

Year and month	All manufacturing		Durable goods		Nondurable goods		Year and month	All manufacturing		Durable goods		Nondurable goods	
	Gross	Exclud- ing over- time	Gross	Exclud- ing over- time	Gross	Exclud- ing over- time		Gross	Exclud- ing over- time	Gross	Exclud- ing over- time	Gross	Exclud- ing over- time
January 1941.....	\$0.683	\$0.664	\$0.749	\$0.722	\$0.610	\$0.601	1948: February....	\$1.287	\$1.247	\$1.352	\$1.309	\$1.217	\$1.181
January 1945.....	1.046	.970	1.144	1.053	.891	.840	March.....	1.289	1.248	1.352	1.306	1.220	1.183
July 1945.....	1.033	.969	1.127	1.052	.902	.854	April.....	1.292	1.253	1.357	1.314	1.220	1.184
June 1946.....	1.084	1.053	1.165	1.134	1.003	.972	May.....	1.301	1.262	1.366	1.324	1.230	1.194
1941: Average.....	.729	.702	.808	.770	.640	.625	June.....	1.316	1.275	1.385	1.341	1.242	1.204
1942: Average.....	.853	.805	.947	.881	.723	.698	July.....	1.332	1.295	1.407	1.369	1.252	1.216
1943: Average.....	.961	.894	1.059	.976	.803	.763	August.....	1.349	1.309	1.431	1.385	1.262	1.228
1944: Average.....	1.019	.947	1.117	1.029	.861	.814	September.....	1.362	1.323	1.448	1.408	1.272	1.235
1945: Average.....	1.023	*.963	1.111	*1.042	.904	*.858	October.....	1.366	1.323	1.452	1.403	1.271	1.236
1946: Average.....	1.084	1.049	1.156	1.122	1.012	.978	November.....	1.372	1.333	1.454	1.411	1.282	1.247
1947: Average.....	1.221	1.182	1.292	1.250	1.145	1.109	December....	1.376	1.334	1.456	1.410	1.287	1.251
1948: Average.....	1.327	1.287	1.401	1.357	1.247	1.211	1949: January <sup>1</sup> ....	1.381	1.344	1.459	1.419	1.294	1.263
							February <sup>2</sup> ....	1.377	1.342	1.458	1.419	1.289	1.258

<sup>1</sup> Overtime is defined as work in excess of 40 hours a week and paid for at time and one-half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on holidays. See Note, table C-1.

<sup>1</sup> Eleven-month average; August 1945 excluded because of VJ-day holiday period.

<sup>2</sup> Preliminary



TABLE C-4: Gross Average Weekly Earnings of Production Workers in Selected Industries, in Current and 1939 Dollars <sup>1</sup>

Year and month	All manufacturing		Bituminous-coal mining		Electric light and power <sup>2</sup>		Year and month	All manufacturing		Bituminous-coal mining		Electric light and power <sup>2</sup>	
	Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars		Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars
January 1941.....	\$26.64	\$26.27	\$26.00	\$25.64	\$35.49	\$35.00	1948: February.....	\$51.75	\$30.71	\$70.54	\$41.86	\$59.60	\$35.37
January 1945.....	47.50	37.15	54.11	42.32	48.90	38.24	March.....	52.07	31.01	74.84	44.57	58.27	34.70
July 1945.....	45.45	34.91	50.66	38.92	50.34	38.67	April.....	51.79	30.41	49.53	29.08	59.10	34.70
June 1946.....	43.31	32.30	64.44	48.05	52.07	38.83	May.....	51.86	30.23	74.08	43.19	59.83	34.88
1939: Average.....	23.86	23.86	23.88	23.88	34.38	34.38	June.....	52.85	30.60	73.87	42.76	60.41	34.97
1940: Average.....	25.20	25.00	24.71	24.51	35.10	34.82	July.....	52.95	30.30	67.62	38.70	61.46	35.17
1941: Average.....	29.58	27.95	30.86	29.16	36.54	34.53	August.....	54.05	30.79	78.10	44.49	61.46	35.01
1942: Average.....	36.65	31.27	35.02	29.88	39.60	33.79	September.....	54.19	30.87	75.51	43.01	61.75	35.17
1943: Average.....	43.14	34.69	41.62	33.47	44.16	35.51	October.....	54.65	31.29	76.40	43.75	62.38	35.72
1944: Average.....	46.08	36.50	51.27	40.61	48.04	38.05	November.....	54.56	31.49	73.52	42.44	62.57	36.12
1945: Average.....	44.39	34.36	52.25	40.45	50.05	38.75	December.....	55.01	31.90	75.79	43.95	62.72	36.37
1946: Average.....	43.74	31.21	58.03	41.41	52.04	37.13	1949: January <sup>4</sup> .....	54.41	31.65	76.84	44.69	63.09	36.69
1947: Average.....	49.25	30.75	66.86	41.75	57.12	35.66	February <sup>4</sup> .....	54.25	31.91	75.65	44.49	62.87	36.98
1948: Average.....	53.15	30.86	72.57	41.87	60.85	35.29							

<sup>1</sup> These series indicate changes in the level of weekly earnings prior to and after adjustment for changes in purchasing power as determined from the Bureau's consumers' price index, the year 1939 having been selected for the base period. Estimates of World War II and postwar understatement by the consumers' price index were not included. See Monthly Labor Review, March 1947, p. 498. See Note, table C-1.

<sup>2</sup> Data relate to all nonsupervisory employees and working supervisors.

<sup>3</sup> April data reflect work stoppages.

<sup>4</sup> Preliminary.

TABLE C-5: Gross and Net Spendable Average Weekly Earnings of Production Workers in Manufacturing Industries, in Current and 1939 Dollars <sup>1</sup>

Year and month	Gross average weekly earnings	Net spendable average weekly earnings				Year and month	Gross average weekly earnings	Net spendable average weekly earnings			
		Worker with no dependents		Worker with three dependents				Worker with no dependents		Worker with three dependents	
		Current dollars	1939 dollars	Current dollars	1939 dollars			Current dollars	1939 dollars	Current dollars	1939 dollars
January 1941.....	\$26.64	\$25.41	\$25.06	\$26.37	\$26.00	1948: February.....	\$51.75	\$45.42	\$26.95	\$51.16	\$30.36
January 1945.....	47.50	39.40	30.81	45.17	35.33	March.....	52.07	45.69	27.21	51.43	30.63
July 1945.....	45.45	37.80	29.04	43.57	33.47	April.....	51.79	45.45	26.68	51.19	30.05
June 1946.....	43.31	37.30	27.81	42.78	31.90	May.....	51.86	45.51	26.53	51.25	29.88
						June.....	52.85	46.35	26.83	52.08	30.15
1939: Average.....	23.86	23.58	23.58	23.62	23.62	July.....	52.95	46.48	26.60	52.22	29.88
1940: Average.....	25.20	24.69	24.49	24.95	24.75	August.....	54.05	47.35	26.97	53.09	30.24
1941: Average.....	29.58	28.05	26.51	29.28	27.67	September.....	54.19	47.47	27.04	53.21	30.31
1942: Average.....	36.65	31.77	27.11	36.28	30.96	October.....	54.65	47.86	27.40	53.60	30.69
1943: Average.....	43.14	36.01	28.97	41.39	33.30	November.....	54.56	47.78	27.58	53.52	30.89
1944: Average.....	46.08	38.29	30.32	44.06	34.89	December.....	55.01	48.16	27.93	53.90	31.26
1945: Average.....	44.39	36.97	28.61	42.74	33.08						
1946: Average.....	43.74	37.65	26.87	43.13	30.78	1949: January <sup>1</sup> .....	54.41	47.66	27.72	53.40	31.06
1947: Average.....	49.25	42.17	26.33	47.65	29.75	February <sup>1</sup> .....	54.25	47.52	27.95	53.26	31.33
1948: Average.....	53.15	46.60	27.05	52.34	30.39						

<sup>1</sup> Net spendable average weekly earnings are obtained by deducting from gross weekly earnings, social security and income taxes for which the specified type of worker is liable. The amount of income tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Net spendable earnings have, therefore, been computed for two types of income-receivers: (1) A worker with no dependents; (2) A worker with three dependents.

The computations of net spendable earnings for both the factory worker with no dependents and the factory worker with three dependents are based

upon the estimates of gross average weekly earnings for all production workers in manufacturing industries without direct regard to marital status and family composition. The primary value of the spendable series is that of measuring relative changes in disposable earnings for two types of income-receivers. That series does not, therefore, reflect actual differences in levels of earnings for workers of varying age, occupation, skill, family composition, etc. See Note, table C-1.

Preliminary.

TABLE C-6: Earnings and Hours of Contract Construction Workers, by Type of Contractor <sup>1</sup>

Year and month	All types of contractors			Building construction														
				Total building			General contractors			Special building trades								
										All trades <sup>2</sup>			Plumbing and heating			Painting and decorating		
	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings
1948: Average.....	\$68.25	38.1	\$1.790	\$68.85	37.3	\$1.848	\$64.64	36.6	\$1.766	\$73.87	38.0	\$1.946	\$76.83	39.2	\$1.960	\$69.77	36.3	\$1.925
January.....	64.29	37.3	1.722	65.51	37.1	1.766	60.65	36.1	1.681	71.06	38.2	1.863	75.49	40.6	1.861	66.19	36.0	1.839
February.....	64.45	36.7	1.757	65.16	36.4	1.791	60.62	35.6	1.703	70.30	37.2	1.890	73.79	39.1	1.885	65.44	35.1	1.861
March.....	65.22	37.3	1.749	65.87	36.9	1.786	61.52	36.3	1.695	70.91	37.5	1.894	74.15	39.2	1.892	66.89	35.8	1.869
April.....	65.91	37.7	1.751	66.45	36.7	1.804	61.80	36.1	1.713	71.86	37.6	1.910	74.09	38.8	1.907	67.91	36.3	1.872
May.....	66.28	37.8	1.756	67.22	37.0	1.815	63.09	36.3	1.740	72.23	37.9	1.908	75.20	39.1	1.925	70.17	37.0	1.898
June.....	68.88	38.9	1.770	69.53	37.9	1.836	65.49	37.3	1.756	74.44	38.5	1.935	78.23	39.9	1.959	70.74	36.8	1.922
July.....	69.84	38.9	1.793	70.47	37.8	1.862	66.38	37.2	1.785	75.32	38.5	1.956	78.15	39.3	1.989	71.49	37.1	1.927
August.....	70.47	39.1	1.803	70.91	37.8	1.874	66.87	37.3	1.793	75.88	38.4	1.976	79.31	39.2	2.024	71.09	36.6	1.944
September.....	71.07	38.9	1.827	71.29	37.6	1.895	67.07	37.0	1.813	76.23	38.3	1.992	78.68	38.8	2.030	71.77	36.8	1.951
October.....	70.51	38.6	1.826	70.59	37.3	1.892	66.53	36.7	1.815	75.51	38.0	1.988	77.49	38.7	2.004	71.15	35.9	1.962
November.....	68.28	37.1	1.840	69.39	36.4	1.906	64.97	35.6	1.824	74.72	37.3	2.006	76.34	38.0	2.010	70.61	35.3	2.002
December.....	71.65	38.5	1.862	72.33	37.8	1.915	68.60	37.4	1.835	76.86	38.1	2.017	80.71	39.7	2.031	71.59	35.9	1.991
1949: January.....	70.20	37.5	1.871	70.96	37.0	1.920	66.84	36.5	1.833	75.67	37.5	2.017	79.48	39.1	2.032	68.54	34.4	1.991
February.....	70.34	37.2	1.891	70.38	36.4	1.934	65.82	35.8	1.841	75.44	37.0	2.037	78.42	38.6	2.034	69.72	35.0	1.992
Building construction—Continued																		
Special building trades—Continued																		
Year and month	Electrical work			Masonry			Plastering and lathing			Carpentry			Roofing and sheet metal			Excavation and foundation		
	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>3</sup>	Average weekly hours	Average hourly earnings
1948: Average.....	\$83.01	39.8	\$2.084	\$69.61	35.4	\$1.969	\$78.52	36.1	\$2.175	\$67.98	37.9	\$1.792	\$62.47	36.5	\$1.710	\$66.44	38.9	\$1.709
January.....	80.98	40.4	2.003	60.40	32.6	1.852	74.71	36.1	2.072	63.49	36.8	1.727	57.38	35.0	1.638	62.64	37.8	1.639
February.....	80.47	39.5	2.038	60.39	31.9	1.895	74.12	35.6	2.084	61.22	35.3	1.736	56.15	33.9	1.653	62.84	37.0	1.667
March.....	81.85	40.4	2.025	61.78	32.8	1.881	74.29	35.5	2.091	62.60	35.4	1.768	56.58	34.5	1.638	60.73	36.5	1.662
April.....	80.97	39.7	2.040	64.91	34.1	1.904	75.83	36.3	2.086	67.60	37.8	1.787	59.00	35.7	1.654	62.42	38.1	1.640
May.....	80.99	39.6	2.044	67.26	34.9	1.930	77.81	36.5	2.131	69.03	38.7	1.782	59.74	35.9	1.662	64.63	39.0	1.656
June.....	81.91	39.8	2.067	71.19	36.0	1.977	82.83	37.4	2.212	70.49	39.5	1.783	63.46	37.1	1.712	67.87	40.6	1.674
July.....	82.68	39.8	2.078	75.14	37.6	1.997	82.25	37.3	2.207	69.59	39.3	1.772	64.90	37.5	1.729	67.06	39.9	1.682
August.....	84.37	40.2	2.100	73.70	36.9	1.997	80.80	36.6	2.206	70.36	39.7	1.774	65.53	37.9	1.729	68.67	39.8	1.734
September.....	84.35	39.5	2.135	74.21	36.9	2.009	82.68	36.8	2.248	70.25	38.6	1.821	66.88	38.0	1.759	70.85	40.2	1.761
October.....	84.68	39.6	2.138	73.87	36.3	2.033	79.82	35.5	2.248	69.87	37.8	1.848	65.98	37.6	1.754	70.25	40.3	1.744
November.....	85.11	39.2	2.172	73.44	36.1	2.036	75.91	34.0	2.231	67.78	37.2	1.824	65.36	37.0	1.766	69.00	38.2	1.807
December.....	87.68	40.4	2.171	72.76	35.9	2.027	78.77	35.3	2.233	69.92	38.2	1.831	65.46	36.9	1.776	65.93	37.7	1.769
1949: January.....	87.49	40.0	2.186	70.08	34.5	2.030	76.82	34.4	2.230	69.29	37.9	1.830	63.03	35.5	1.777	64.53	36.5	1.767
February.....	86.08	39.1	2.201	65.71	32.2	2.040	79.10	35.4	2.235	66.31	36.2	1.831	60.06	33.7	1.781	67.65	37.3	1.816

See footnotes at end of table.



TABLE C-6: Earnings and Hours of Contract Construction Workers, by Type of Contractor—Con.

Year and month	Nonbuilding construction											
	Total nonbuilding			Highway and street			Heavy construction			Other		
	Average weekly earnings <sup>1</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>1</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>1</sup>	Average weekly hours	Average hourly earnings	Average weekly earnings <sup>1</sup>	Average weekly hours	Average hourly earnings
1948: Average.....	\$66.61	40.6	\$1.639	\$62.41	41.6	\$1.500	\$69.69	39.9	\$1.746	\$66.16	40.4	\$1.637
January.....	60.48	38.1	1.587	54.69	38.1	1.436	63.95	38.2	1.675	57.86	37.6	1.537
February.....	61.96	37.8	1.638	55.04	36.2	1.528	65.76	38.4	1.711	59.81	37.9	1.577
March.....	63.09	38.8	1.628	55.88	37.6	1.487	66.74	39.2	1.702	62.15	38.8	1.604
April.....	64.30	40.2	1.600	58.12	40.1	1.449	67.91	40.0	1.696	64.42	40.5	1.591
May.....	63.69	39.8	1.600	58.99	40.4	1.460	66.85	39.4	1.699	64.01	39.6	1.615
June.....	67.28	41.7	1.614	62.75	42.1	1.489	71.15	41.5	1.715	66.36	41.0	1.619
July.....	68.33	41.8	1.634	64.47	43.1	1.494	70.83	40.6	1.744	69.36	42.0	1.652
August.....	69.40	42.3	1.639	65.70	43.8	1.501	72.57	41.1	1.665	69.59	41.9	1.662
September.....	70.56	42.4	1.663	67.30	44.1	1.526	73.66	41.0	1.795	69.82	41.9	1.666
October.....	70.40	42.1	1.672	67.42	43.7	1.541	73.18	40.7	1.799	69.74	41.7	1.671
November.....	65.31	39.1	1.671	61.54	40.6	1.514	67.53	37.5	1.803	67.00	39.8	1.683
December.....	69.64	40.7	1.712	62.62	40.7	1.538	74.47	40.6	1.833	69.03	40.6	1.702
1949: January.....	67.54	39.5	1.710	59.98	39.2	1.530	73.00	39.7	1.839	67.52	39.6	1.705
February.....	68.07	39.7	1.715	61.20	39.8	1.536	72.34	39.4	1.835	68.82	40.1	1.716

<sup>1</sup> Covers contract construction firms reporting to the Bureau during the months shown (over 14,000), but not necessarily identical establishments. The data cover all employees engaged on-site or off-site in actual construction work (including pre-assembly and pre-cutting operations) on both privately and publicly financed projects. Excluded are all nonconstruction workers, on or off the site. This series revised in coverage, effective with January 1948 data. An article, "Revised Series Hours and Earnings in Contract Con-

struction Industry," explaining the revisions, will appear in the June 1949 issue of the Monthly Labor Review.

<sup>2</sup> Includes types not shown separately.

<sup>3</sup> Hourly earnings, when multiplied by weekly hours of work, may not exactly equal weekly earnings because of rounding.

<sup>4</sup> Preliminary.

## D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index<sup>1</sup> for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39=100]

Year and month	All items	Food	Apparel	Rent	Fuel, electricity, and refrigeration <sup>2</sup>				Housefurnishings	Miscellaneous <sup>3</sup>
					Total	Gas and electricity	Other fuels	Ice		
1913: Average.....	70.7	79.9	69.3	92.2	61.9	(4)	(4)	(4)	59.1	50.9
1914: July.....	71.7	81.7	69.8	92.2	62.3	(4)	(4)	(4)	60.8	52.0
1918: December.....	118.0	149.6	147.9	97.1	90.4	(4)	(4)	(4)	121.2	83.1
1920: June.....	149.4	185.0	209.7	119.1	104.8	(4)	(4)	(4)	169.7	100.7
1929: Average.....	122.5	132.5	115.3	141.4	112.5	(4)	(4)	(4)	111.7	104.6
1932: Average.....	97.6	86.5	90.8	116.9	103.4	(4)	(4)	(4)	85.4	101.7
1939: Average.....	99.4	95.2	100.5	104.3	99.0	98.9	99.1	100.2	101.3	100.7
August 15.....	98.6	93.5	100.3	104.3	97.5	99.0	95.2	100.0	100.6	100.4
1940: Average.....	100.2	96.6	101.7	104.6	99.7	98.0	101.9	100.4	100.5	101.1
1941: Average.....	105.2	105.5	106.3	106.2	102.2	97.1	108.3	104.1	107.3	104.0
January 1.....	100.8	97.6	101.2	105.0	100.8	97.5	105.4	100.3	100.2	101.6
December 15.....	110.5	113.1	114.8	108.2	104.1	96.7	113.1	105.1	116.8	107.7
1942: Average.....	116.5	123.9	124.2	108.5	105.4	96.7	115.1	110.0	122.2	110.9
1943: Average.....	123.6	138.0	129.7	108.0	107.7	96.1	120.7	114.2	125.6	115.8
1944: Average.....	125.5	136.1	138.8	108.2	109.8	95.8	126.0	115.8	136.4	121.3
1945: Average.....	128.4	139.1	145.9	108.3	110.3	95.0	128.3	115.9	145.8	124.1
August 15.....	129.3	140.9	146.4	(4)	111.4	95.2	131.0	115.8	146.0	124.5
1946: Average.....	139.3	159.6	160.2	108.6	112.4	92.4	136.9	115.9	159.2	128.8
June 15.....	133.3	145.6	157.2	108.5	110.5	92.1	133.0	115.1	156.1	127.9
November 15.....	152.2	187.7	171.0	(4)	114.8	91.8	142.6	117.9	171.0	132.5
1947: Average.....	159.2	193.8	185.8	111.2	121.1	92.0	156.1	125.9	184.4	139.9
December 15.....	167.0	206.9	191.2	115.4	127.8	92.6	171.1	129.8	191.4	144.4
1948: Average.....	171.2	210.2	198.0	117.4	133.9	94.3	183.4	135.2	195.8	149.9
March 15.....	166.9	202.3	196.3	116.3	130.3	93.8	175.5	132.2	194.9	146.2
April 15.....	169.3	207.9	196.4	116.3	130.7	93.9	176.1	133.2	194.7	147.8
May 15.....	170.5	210.9	197.5	116.7	131.8	94.1	178.5	133.7	193.6	147.5
June 15.....	171.7	214.1	196.9	117.0	132.6	94.2	180.6	134.2	194.8	147.5
July 15.....	173.7	216.8	197.1	117.3	134.8	94.4	185.0	136.5	195.9	150.8
August 15.....	174.5	216.6	199.7	117.7	136.8	94.5	190.1	137.3	196.3	152.4
September 15.....	174.5	215.2	201.0	118.5	137.3	94.6	191.0	137.6	198.1	152.7
October 15.....	173.6	211.5	201.6	118.7	137.8	95.4	191.4	137.9	198.8	153.7
November 15.....	172.2	207.5	201.4	118.8	137.9	95.4	191.6	138.0	198.7	153.9
December 15.....	171.4	205.0	200.4	119.5	137.8	95.3	191.3	138.4	198.6	154.0
1949: January 15.....	170.9	204.8	196.5	119.7	138.2	95.5	191.8	139.0	196.5	154.1
February 15.....	169.0	199.7	195.1	119.9	138.8	96.1	192.6	140.0	195.6	154.1
March 15.....	169.5	201.6	193.9	120.1	138.9	96.1	192.5	140.4	193.8	154.4

<sup>1</sup> The "Consumers' price index for moderate-income families in large cities," formerly known as the "Cost of living index" measures average changes in retail prices of selected goods, rents, and services weighted by quantities bought in 1934-36 by families of wage earners and moderate-income workers in large cities whose incomes averaged \$1,524 in 1934-36.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains a detailed description of methods used in constructing this index. Additional information on the consumers' price index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living.

Mimeographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities

varies from city to city but indexes are available for most of the 34 cities since World War I.

<sup>2</sup> The group index formerly entitled "Fuel, electricity, and ice" is now designated "Fuel, electricity, and refrigeration". Indexes are comparable with those previously published for "Fuel, electricity, and ice." The subgroup "Other fuels and ice" has been discontinued; separate indexes are presented for "Other fuels" and "Ice."

<sup>3</sup> The miscellaneous group covers transportation (such as automobiles and their upkeep and public transportation fares); medical care (including professional care and medicines); household operation (covering supplies and different kinds of paid services); recreation (that is, newspapers, motion pictures, and tobacco products); personal care (barber- and beauty-shop service and toilet articles); etc.

<sup>4</sup> Data not available.

<sup>5</sup> Rents not surveyed this month.



TABLE D-2: Consumers' Price Index for Moderate-Income Families, by City,<sup>1</sup> for Selected Periods

[1935-39=100]

City	Mar. 15, 1949	Feb. 15, 1949	Jan. 15, 1949	Dec. 15, 1948	Nov. 15, 1948	Oct. 15, 1948	Sept. 15, 1948	Aug. 15, 1948	July 15, 1948	June 15, 1948	May 15, 1948	Apr. 15, 1948	Mar. 15, 1948	June 15, 1946	Aug. 15, 1939
Average.....	169.5	169.0	170.9	171.4	172.2	173.6	174.5	174.5	173.7	171.7	170.8	169.3	166.9	133.3	98.6
Atlanta, Ga.....	(2)	170.1	(2)	(2)	173.7	(2)	(2)	176.2	(2)	(2)	170.8	(2)	(2)	133.8	98.0
Baltimore, Md.....	173.9	(2)	(2)	174.0	(2)	(2)	179.2	(2)	(2)	176.1	(2)	(2)	170.9	135.6	98.7
Birmingham, Ala.....	171.8	171.7	173.7	174.8	175.0	176.9	178.6	179.3	177.0	174.7	173.7	172.7	172.0	136.8	98.5
Boston, Mass.....	162.5	161.4	163.9	164.7	166.7	167.8	169.0	168.7	168.6	166.1	164.1	163.6	160.8	127.9	97.1
Buffalo, N. Y.....	(2)	(2)	169.8	(2)	(2)	172.7	(2)	(2)	173.1	(2)	(2)	167.2	(2)	132.6	98.5
Chicago, Ill.....	174.5	172.9	174.9	175.4	175.9	178.1	179.4	178.8	178.6	176.2	174.9	172.1	169.0	130.9	98.7
Cincinnati, Ohio.....	170.7	169.7	172.0	172.2	173.8	175.5	176.3	175.7	175.9	173.5	172.3	170.8	169.3	132.2	97.3
Cleveland, Ohio.....	(2)	172.5	(2)	(2)	176.8	(2)	(2)	179.3	(2)	(2)	173.7	(2)	(2)	135.7	100.0
Denver, Colo.....	(2)	(2)	171.0	(2)	(2)	171.0	(2)	(2)	172.5	(2)	(2)	168.5	(2)	131.7	98.6
Detroit, Mich.....	170.8	170.7	171.6	172.8	173.1	174.6	175.4	176.1	175.9	174.5	173.2	171.8	168.7	136.4	98.5
Houston, Tex.....	170.2	170.2	172.6	173.8	173.9	174.7	175.4	175.2	173.7	172.5	171.5	171.4	170.0	130.5	100.7
Indianapolis, Ind.....	(2)	(2)	173.6	(2)	(2)	178.0	(2)	(2)	176.5	(2)	(2)	172.5	(2)	131.9	98.0
Jacksonville, Fla.....	174.3	(2)	(2)	176.2	(2)	(2)	179.1	(2)	(2)	178.3	(2)	(2)	172.8	138.4	98.5
Kansas City, Mo.....	(2)	(2)	165.1	(2)	(2)	167.5	(2)	(2)	166.3	(2)	(2)	163.3	(2)	129.4	98.6
Los Angeles, Calif.....	171.0	173.3	172.7	172.7	172.2	171.8	171.0	171.0	170.3	168.8	169.1	169.3	167.4	136.1	100.5
Manchester, N. H.....	(2)	(2)	172.3	(2)	(2)	176.5	(2)	(2)	178.1	(2)	(2)	172.0	(2)	134.7	97.8
Memphis, Tenn.....	173.3	(2)	(2)	174.3	(2)	(2)	177.1	(2)	(2)	174.7	(2)	(2)	172.4	134.5	97.8
Milwaukee, Wis.....	(2)	168.7	(2)	(2)	171.2	(2)	(2)	174.5	(2)	(2)	171.1	(2)	(2)	131.2	97.0
Minneapolis, Minn.....	169.3	(2)	(2)	170.8	(2)	(2)	173.8	(2)	(2)	171.4	(2)	(2)	167.7	129.4	99.7
Mobile, Ala.....	171.1	(2)	(2)	173.5	(2)	(2)	177.3	(2)	(2)	173.5	(2)	(2)	169.9	132.9	98.6
New Orleans, La.....	(2)	173.2	(2)	(2)	176.6	(2)	(2)	179.8	(2)	(2)	176.5	(2)	(2)	138.0	99.7
New York, N. Y.....	167.4	166.8	169.2	169.2	171.0	171.7	173.3	173.3	172.6	169.1	167.5	167.0	164.3	135.8	99.0
Norfolk, Va.....	(2)	170.6	(2)	(2)	174.0	(2)	(2)	176.2	(2)	(2)	171.9	(2)	(2)	135.2	97.8
Philadelphia, Pa.....	169.0	168.5	170.4	170.6	171.7	174.1	174.8	174.8	172.9	172.1	170.4	169.3	165.5	132.5	97.8
Pittsburgh, Pa.....	172.7	172.1	174.6	174.9	175.9	177.1	178.3	178.3	177.8	175.7	173.5	171.9	170.1	134.7	98.4
Portland, Maine.....	165.0	(2)	(2)	167.1	(2)	(2)	170.7	(2)	(2)	167.4	(2)	(2)	162.7	128.7	97.1
Portland, Oreg.....	(2)	(2)	178.6	(2)	(2)	180.1	(2)	(2)	180.3	(2)	(2)	175.8	(2)	140.3	100.1
Richmond, Va.....	(2)	(2)	166.5	(2)	(2)	170.0	(2)	(2)	168.9	(2)	(2)	163.4	(2)	128.2	98.0
St. Louis, Mo.....	169.0	(2)	(2)	171.1	(2)	(2)	175.0	(2)	(2)	172.1	(2)	(2)	167.8	131.2	98.1
San Francisco, Calif.....	174.6	(2)	(2)	176.7	(2)	(2)	177.1	(2)	(2)	174.2	(2)	(2)	171.4	137.8	99.3
Savannah, Ga.....	(2)	(2)	176.7	(2)	(2)	178.4	(2)	(2)	180.2	(2)	(2)	177.6	(2)	140.6	99.3
Scranton, Pa.....	(2)	166.8	(2)	(2)	169.4	(2)	(2)	174.7	(2)	(2)	170.2	(2)	(2)	132.2	96.0
Seattle, Wash.....	(2)	174.3	(2)	(2)	174.3	(2)	(2)	176.2	(2)	(2)	174.3	(2)	(2)	137.0	100.3
Washington, D. C.....	(2)	164.1	(2)	(2)	167.1	(2)	(2)	169.2	(2)	(2)	166.7	(2)	(2)	133.8	98.6

<sup>1</sup> The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

<sup>2</sup> Through June 1947, consumers' price indexes were computed monthly for

21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

TABLE D-3: Consumers' Price Index for Moderate-Income Families, by City and Group of Commodities<sup>1</sup>

[1935-39=100]

City	Food		Apparel		Rent		Fuel, electricity, and refrigeration				Housefurnishings		Miscellaneous	
							Total		Gas and electricity					
	Mar. 15, 1949	Feb. 15, 1949	Mar. 15, 1949	Feb. 15, 1949	Mar. 15, 1949	Feb. 15, 1949	Mar. 15, 1949	Feb. 15, 1949	Mar. 15, 1949	Feb. 15, 1949	Mar. 15, 1949	Feb. 15, 1949	Mar. 15, 1949	Feb. 15, 1949
Average.....	201.6	199.7	193.9	195.1	120.1	119.9	138.9	138.8	96.1	96.1	193.8	195.6	154.4	154.1
Atlanta, Ga.....	198.3	194.7	(1)	202.0	(7)	123.2	151.3	151.2	83.3	83.3	(1)	198.8	(1)	157.4
Baltimore, Md.....	212.9	210.3	192.1	(1)	117.1	(7)	148.2	148.4	121.9	122.0	198.5	(1)	154.7	(1)
Birmingham, Ala.....	197.4	195.8	201.1	204.7	(7)	141.1	135.6	135.6	79.6	79.6	188.2	190.7	150.7	150.2
Boston, Mass.....	190.9	187.8	183.8	185.8	116.4	(7)	155.0	154.8	117.1	117.1	182.0	187.2	145.9	146.0
Buffalo, N. Y.....	195.0	191.4	(1)	(1)	(7)	(7)	143.6	143.6	101.3	101.3	(1)	(1)	(1)	(1)
Chicago, Ill.....	205.9	202.7	198.6	198.0	139.0	(7)	131.4	131.4	83.5	83.5	182.1	182.4	156.5	155.5
Cincinnati, Ohio.....	201.9	199.7	191.4	192.2	115.7	(7)	146.4	146.4	101.9	101.9	188.7	191.2	155.7	154.2
Cleveland, Ohio.....	210.2	207.2	(1)	194.1	(7)	126.6	145.8	145.8	105.6	105.6	(1)	182.8	(1)	153.3
Denver, Colo.....	207.0	204.5	(1)	(1)	(7)	(7)	112.1	112.1	69.2	69.2	(1)	(1)	(1)	(1)
Detroit, Mich.....	195.1	194.5	190.4	190.9	(7)	(7)	152.7	152.6	91.9	91.8	201.2	202.1	167.0	167.0
Houston, Tex.....	209.6	208.0	204.1	204.4	(7)	122.3	99.4	99.4	81.5	81.5	193.3	197.9	153.4	153.7
Indianapolis, Ind.....	197.9	195.5	(1)	(1)	(7)	(7)	158.5	158.6	86.6	86.6	(1)	(1)	(1)	(1)
Jacksonville, Fla.....	206.0	201.2	191.3	(1)	128.1	(7)	146.9	146.9	100.5	100.5	187.6	(1)	160.7	(1)
Kansas City, Mo.....	189.8	189.2	(1)	(1)	(7)	(7)	128.5	128.5	67.1	67.0	(1)	(1)	(1)	(1)
Los Angeles, Calif.....	211.2	210.8	188.0	189.9	(7)	126.2	94.5	94.5	89.3	89.3	186.7	188.6	154.8	155.2
Manchester, N. H.....	199.3	196.4	(1)	(1)	(7)	(7)	154.6	156.8	98.7	98.8	(1)	(1)	(1)	(1)
Memphis, Tenn.....	211.9	212.2	206.6	(1)	130.3	(7)	140.6	135.0	77.0	77.0	182.7	(1)	144.7	(1)
Milwaukee, Wis.....	202.8	200.8	(1)	196.3	(7)	118.2	146.1	146.1	104.5	104.5	(1)	195.3	(1)	150.3
Minneapolis, Minn.....	192.4	190.1	195.4	(1)	131.1	(7)	142.1	142.6	78.9	78.9	189.8	(1)	159.7	(1)
Mobile, Ala.....	206.9	207.4	198.8	(1)	126.2	(7)	129.9	129.8	84.0	83.9	174.8	(1)	145.7	(1)
New Orleans, La.....	211.0	210.2	(1)	206.6	(7)	113.6	113.4	113.4	75.1	75.1	(1)	198.8	(1)	146.9
New York, N. Y.....	202.4	200.0	192.4	193.9	(7)	(7)	135.2	135.3	102.3	102.1	183.3	185.4	150.1	150.4
Norfolk, Va.....	203.5	202.0	(1)	190.7	(7)	115.9	154.1	154.1	102.6	102.6	(1)	196.6	(1)	152.8
Philadelphia, Pa.....	196.7	195.0	190.0	190.8	(7)	120.2	144.7	144.7	103.0	103.0	195.5	197.2	152.6	152.5
Pittsburgh, Pa.....	204.6	202.2	227.9	229.7	(7)	(7)	140.3	140.4	103.4	103.4	198.1	197.9	147.4	147.6
Portland, Maine.....	191.5	189.7	194.0	(1)	113.4	(7)	152.9	153.8	108.3	108.2	190.9	(1)	151.8	(1)
Portland, Oreg.....	222.5	220.4	(1)	(1)	(7)	(7)	138.2	138.6	94.2	93.8	(1)	(1)	(1)	(1)
Richmond, Va.....	197.1	193.5	(1)	(1)	(7)	(7)	143.3	143.3	95.6	95.6	(1)	(1)	(1)	(1)
St. Louis, Mo.....	207.6	207.1	197.5	(1)	119.8	(7)	135.3	135.7	88.4	88.4	173.5	(1)	145.2	(1)
San Francisco, Calif.....	216.3	219.3	190.0	(1)	116.2	(7)	82.7	82.8	72.7	72.7	166.6	(1)	165.6	(1)
Savannah, Ga.....	212.4	208.5	(1)	(1)	(7)	(7)	156.9	156.9	108.6	108.6	(1)	(1)	(1)	(1)
Scranton, Pa.....	201.1	196.0	(1)	203.1	(7)	110.3	144.4	144.6	91.8	91.8	(1)	178.8	(1)	144.1
Seattle, Wash.....	213.5	213.6	(1)	194.2	(7)	124.0	128.0	128.0	93.2	93.2	(1)	196.3	(1)	157.1
Washington, D. C.....	198.8	195.2	(1)	216.3	(7)	104.3	138.5	138.6	98.6	98.6	(1)	204.4	(1)	155.5

<sup>1</sup> Prices of apparel, housefurnishings, and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities according to a staggered schedule.

<sup>2</sup> Rents are surveyed every 3 months in 34 large cities according to a staggered schedule.

<sup>3</sup> The during through Article families The fixed-bu tive im age pri



TABLE D-4: Indexes of Retail Prices of Foods,<sup>1</sup> by Group, for Selected Periods

(1935-39=100)

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chicken	Fish	Dairy products	Eggs	Fruits and vegetables				Beverages	Fats and oils	Sugar and sweets
				Total	Beef and veal	Pork	Lamb					Total	Fresh	Canned	Dried			
1923: Average	124.0	105.5	101.2							129.4	136.1	169.5	173.6	124.8	175.4	131.5	126.2	175.4
1926: Average	137.4	115.7	117.8							127.4	141.7	210.8	226.2	122.9	152.4	170.4	145.0	120.0
1929: Average	132.5	107.6	127.1							131.0	143.8	169.0	173.5	124.3	171.0	164.8	127.2	114.3
1932: Average	86.5	82.6	79.3							84.9	82.3	103.5	105.9	91.1	91.2	112.6	71.1	89.6
1939: Average	95.2	94.5	96.6	96.6	101.1	88.9	99.5	93.8	101.0	95.9	91.0	94.5	95.1	92.3	93.3	95.5	87.7	100.6
August	93.5	93.4	95.7	95.4	99.6	88.0	98.8	94.6	99.6	93.1	90.7	92.4	92.8	91.6	90.3	94.9	84.5	95.6
1940: Average	96.6	96.8	95.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	96.5	97.3	92.4	100.6	92.5	82.2	96.8
1941: Average	105.5	97.9	107.5	106.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	163.2	104.2	97.9	106.7	101.5	94.0	106.4
December	113.1	102.5	111.1	109.7	114.4	103.2	108.1	100.5	138.9	120.5	138.1	110.5	111.0	106.3	118.3	114.1	108.5	114.4
1942: Average	123.9	105.1	126.0	122.5	123.6	120.4	124.1	122.6	163.0	125.4	136.5	130.8	132.8	121.6	136.3	122.1	119.6	126.5
1943: Average	138.0	107.6	133.8	124.2	124.7	119.9	136.9	146.1	206.5	134.6	161.9	168.8	178.0	130.6	158.9	124.8	126.1	127.1
1944: Average	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	133.6	153.9	168.2	177.2	129.5	164.5	124.3	123.3	126.5
1945: Average	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	188.2	130.2	168.2	124.7	124.0	126.5
August	140.9	109.1	131.8	118.1	118.5	112.6	136.4	157.3	217.8	133.4	171.4	183.5	196.2	130.3	168.6	124.7	124.0	126.6
1946: Average	159.6	125.0	161.3	150.8	150.5	148.2	163.9	174.0	236.2	165.1	168.8	182.4	190.7	140.8	190.4	139.6	152.1	143.9
June	145.6	122.1	134.0	120.4	121.2	114.3	139.0	162.8	219.7	147.8	147.1	183.5	196.7	127.5	172.5	125.4	126.4	136.2
November	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	198.5	201.6	184.5	182.3	167.7	251.6	167.8	244.4	170.5
1947: Average	193.8	155.4	217.1	214.7	213.6	215.9	220.1	183.2	271.4	186.2	200.8	199.4	201.5	166.2	263.5	186.8	197.5	180.0
1948: Average	210.2	170.9	246.5	243.9	258.5	222.5	246.8	203.2	312.8	204.8	208.7	205.2	212.4	158.0	246.8	205.0	195.5	174.0
March	202.3	171.0	224.7	218.2	228.5	204.3	216.8	194.7	313.6	201.1	186.3	206.9	214.2	157.7	253.9	204.4	191.7	174.4
April	207.9	171.0	233.8	229.5	241.2	212.3	232.6	198.4	307.2	205.8	184.7	217.4	228.4	156.4	252.1	204.4	191.4	173.6
May	210.9	171.1	244.2	242.0	255.8	219.1	253.5	202.1	305.0	204.8	184.9	218.0	229.4	156.4	250.0	204.6	196.6	173.0
June	214.1	171.2	255.1	255.2	273.9	223.5	271.2	207.6	299.3	205.9	194.2	214.9	225.2	157.4	248.0	205.1	200.5	170.6
July	218.8	171.0	261.8	263.0	280.9	233.8	275.0	209.3	301.6	209.0	204.3	213.4	223.2	157.7	248.0	205.2	200.8	170.9
August	216.6	170.8	267.0	269.3	286.2	246.1	266.6	207.8	304.4	211.0	220.2	199.6	204.8	157.8	249.2	205.3	197.8	172.3
September	215.2	170.7	265.3	265.9	280.8	247.9	256.6	209.4	314.9	208.7	226.6	195.8	199.6	159.0	249.1	205.6	196.8	173.2
October	211.5	170.0	256.1	254.3	269.8	233.9	249.4	204.0	325.9	203.0	239.0	193.5	197.3	158.9	238.1	205.9	193.0	173.1
November	207.5	169.9	246.7	243.1	262.4	214.4	246.5	200.5	328.1	199.5	244.3	189.4	192.4	159.4	230.6	206.4	189.4	173.3
December	205.0	170.2	241.3	235.4	255.1	206.2	238.6	208.0	328.1	199.2	217.3	192.3	196.2	159.4	229.8	207.8	184.4	173.0
1949: January	204.8	170.5	235.9	228.2	244.5	203.1	234.4	208.9	331.7	196.0	209.6	205.2	213.3	159.2	228.4	208.7	174.7	173.4
February	199.7	170.0	221.4	212.3	220.5	196.3	228.4	199.0	327.2	192.5	179.6	213.7	224.9	158.6	224.6	209.0	159.8	174.3
March	201.6	170.1	229.6	222.5	230.3	206.4	240.7	198.9	325.9	190.3	180.1	214.5	226.0	158.0	227.9	208.5	155.1	175.5

<sup>1</sup> The Bureau of Labor Statistics retail food prices are obtained monthly during the first three days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

The indexes, based on the retail prices of 50 foods, are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales, in computing city average prices; (2) food purchases by families of wage earners and moderate-

income workers, in computing city indexes; and (3) population weights, in combining city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1947 (1935-39=100), may be found in Bulletin No. 938, "Retail Prices of Food—1946 and 1947," Bureau of Labor Statistics, U. S. Department of Labor, table 3, p. 42. Mimeographed tables of the same data, by months, January 1935 to date, are available upon request.

<sup>2</sup> Revised.

TABLE D-5: Indexes of Retail Prices of Foods, by City

[1935-39=100]

City	Mar. 1949	Feb. 1949	Jan. 1949	Dec. 1948	Nov. 1948	Oct. 1948	Sept. 1948	Aug. 1948	July 1948	June 1948	May 1948	Apr. 1948	Mar. 1948	June 1946	Aug. 1946
United States.....	201.6	199.7	204.8	205.0	207.5	211.5	215.2	216.6	216.8	214.1	210.9	207.9	202.3	145.6	98.4
Atlanta, Ga.....	198.3	194.7	202.1	203.3	205.9	208.3	214.2	215.7	212.4	209.9	207.9	204.7	201.1	141.0	92.8
Baltimore, Md.....	212.9	210.3	213.5	214.6	218.7	224.5	228.7	228.9	227.7	225.3	221.6	217.8	212.3	152.4	94.7
Birmingham, Ala.....	197.4	195.8	202.0	204.8	205.4	210.8	216.3	219.3	218.0	212.7	209.6	207.5	207.2	147.7	90.7
Boston, Mass.....	190.9	187.8	194.1	194.2	199.2	202.6	207.2	208.8	210.2	204.1	199.2	198.2	192.2	138.0	90.8
Bridgeport, Conn.....	197.9	194.9	200.0	201.0	205.9	209.3	212.7	214.6	214.4	210.3	207.5	201.4	195.6	139.1	93.2
Buffalo, N. Y.....	195.0	191.4	197.9	200.0	201.6	206.4	210.1	213.0	212.9	211.6	207.9	200.2	196.6	140.2	94.8
Butte, Mont.....	201.3	201.5	205.0	205.7	209.3	214.9	214.5	215.1	216.6	214.7	207.4	201.3	200.5	139.7	94.1
Cedar Rapids, Iowa <sup>1</sup> .....	207.8	206.8	211.5	211.8	214.4	218.0	220.2	222.2	224.4	224.3	219.7	217.0	208.2	148.2	91.7
Charleston, S. C.....	193.8	190.8	196.9	197.1	198.9	204.9	207.7	208.0	211.4	208.1	206.7	204.8	199.1	140.8	95.1
Chicago, Ill.....	205.9	202.7	207.3	208.2	211.9	218.0	221.4	223.6	224.7	221.3	218.4	212.2	204.3	142.8	92.3
Cincinnati, Ohio.....	201.9	199.7	205.5	205.2	209.4	214.4	218.0	218.1	220.4	216.3	213.5	210.1	206.1	141.4	90.4
Cleveland, Ohio.....	210.2	207.2	212.8	213.0	217.0	220.9	225.6	229.0	226.2	223.7	218.0	213.0	209.3	149.3	93.6
Columbus, Ohio.....	184.3	182.3	188.6	189.4	193.1	197.2	200.8	202.2	201.9	199.2	198.3	193.1	190.8	136.4	88.1
Dallas, Tex.....	202.0	200.7	207.1	208.2	212.7	214.7	217.3	215.2	213.3	210.5	210.5	206.7	203.0	142.4	91.7
Denver, Colo.....	207.0	204.5	209.6	211.0	207.7	208.3	210.5	213.1	217.0	216.5	213.3	208.5	202.3	145.3	92.7
Detroit, Mich.....	195.1	194.5	197.3	198.7	199.9	204.4	207.6	210.1	213.2	211.3	208.0	203.9	197.7	145.4	90.6
Fall River, Mass.....	199.6	195.3	199.8	200.4	202.5	209.1	211.6	213.5	214.1	211.3	207.2	201.2	197.2	138.1	93.4
Houston, Tex.....	209.6	208.0	215.7	218.1	217.6	220.8	223.7	223.8	222.1	220.0	218.1	219.3	216.0	144.0	97.8
Indianapolis, Ind.....	197.9	195.5	200.9	204.8	206.8	211.8	216.0	217.1	212.6	211.5	208.0	205.7	203.8	141.5	90.7
Jackson, Miss. <sup>1</sup> .....	203.7	205.4	209.5	213.8	212.7	218.6	220.7	220.6	220.8	216.7	218.0	218.3	214.6	150.6	91.7
Jacksonville, Fla.....	206.0	201.2	210.6	209.9	212.6	217.5	219.3	220.7	222.8	222.9	217.3	214.7	208.1	150.8	95.8
Kansas City, Mo.....	189.8	189.2	194.6	194.7	198.5	201.1	204.4	205.4	204.4	204.4	202.2	197.0	193.0	134.8	91.5
Knoxville, Tenn. <sup>1</sup> .....	222.1	221.3	230.0	233.9	233.9	236.7	241.6	244.6	241.7	238.4	236.2	233.9	230.0	165.6	91.0
Little Rock, Ark.....	198.0	197.2	199.8	201.6	202.4	206.5	212.0	212.4	213.4	210.0	209.2	206.4	203.8	139.1	94.0
Los Angeles, Calif.....	211.2	210.8	215.5	214.9	213.7	213.1	212.1	212.7	213.1	212.1	212.6	213.9	208.9	154.8	94.6
Louisville, Ky.....	187.7	189.2	193.9	196.6	198.9	201.7	207.2	207.4	206.8	203.8	201.6	198.2	193.9	135.6	92.1
Manchester, N. H.....	199.3	196.4	201.8	203.6	204.8	210.4	215.5	217.8	218.4	213.0	208.9	204.9	202.0	144.4	94.9
Memphis, Tenn.....	211.9	212.2	217.1	217.9	219.0	223.7	227.8	227.1	229.8	226.7	223.2	222.2	219.9	153.6	90.7
Milwaukee, Wis.....	202.8	200.8	206.5	205.0	207.5	211.2	216.3	218.8	218.3	215.3	213.7	210.9	204.6	144.3	91.1
Minneapolis, Minn.....	192.4	190.1	195.3	195.6	197.8	202.2	206.0	209.2	208.2	206.2	206.0	203.0	198.1	137.5	95.0
Mobile, Ala.....	206.9	207.4	214.5	211.8	211.3	213.8	222.1	222.7	222.5	219.8	217.0	216.3	212.2	149.8	95.8
Newark, N. J.....	197.6	196.3	200.1	201.2	203.9	205.8	211.1	212.6	212.8	209.9	204.7	203.0	196.4	147.9	95.6
New Haven, Conn.....	193.6	190.9	195.1	194.5	199.6	203.5	205.3	205.6	208.3	205.4	201.2	197.7	193.0	140.4	93.7
New Orleans, La.....	211.0	210.2	213.2	216.1	218.0	220.5	227.7	228.5	233.2	227.3	223.0	228.7	224.3	157.6	97.6
New York, N. Y.....	202.4	200.0	205.3	204.3	208.7	211.5	216.2	216.9	217.9	213.9	210.0	208.6	201.2	149.2	95.8
Norfolk, Va.....	203.5	202.0	208.7	209.8	211.8	217.1	220.2	220.5	216.9	214.4	213.3	210.5	206.0	146.0	93.6
Omaha, Nebr.....	196.5	195.7	198.0	203.1	205.6	210.2	210.3	211.1	208.6	210.1	207.2	202.5	197.7	139.5	92.3
Peoria, Ill.....	210.8	207.9	215.7	216.8	218.0	222.1	230.3	230.8	234.9	227.3	223.8	217.0	205.8	151.3	93.4
Philadelphia, Pa.....	196.7	195.0	200.4	199.3	202.0	208.4	212.0	212.5	210.9	209.4	205.0	202.8	196.3	143.5	93.0
Pittsburgh, Pa.....	204.6	202.2	208.0	208.0	211.0	215.1	219.5	220.9	222.3	219.6	213.7	209.8	204.8	147.1	92.5
Portland, Maine.....	191.5	189.7	194.3	195.0	198.0	204.1	207.0	209.8	209.7	204.1	199.4	197.0	192.4	138.4	95.9
Portland, Oreg.....	222.5	220.4	224.2	223.5	222.9	227.7	231.4	234.1	233.7	228.2	229.5	223.2	220.4	158.4	96.1
Providence, R. I.....	206.4	202.9	210.1	209.2	211.7	218.4	223.8	227.2	224.9	222.0	217.9	213.1	205.5	144.9	93.7
Richmond, Va.....	197.1	193.5	200.3	201.5	203.6	209.7	214.1	211.7	209.4	205.8	203.4	200.6	197.6	138.4	92.2
Rochester, N. Y.....	193.3	192.1	195.5	196.5	196.7	200.7	207.3	209.7	211.2	208.8	205.1	200.8	196.7	142.5	92.3
St. Louis, Mo.....	207.6	207.1	212.4	212.2	213.1	217.4	223.0	225.3	224.2	222.0	218.2	213.6	210.9	147.4	93.8
St. Paul, Minn.....	190.4	188.9	192.9	192.1	194.8	199.7	203.1	204.5	204.7	203.7	203.5	200.5	195.3	137.3	94.3
Salt Lake City, Utah.....	207.3	207.4	211.8	209.8	208.8	211.2	214.7	216.0	217.1	215.8	216.8	212.9	207.3	151.7	94.6
San Francisco, Calif.....	216.3	219.3	223.2	221.1	219.5	223.0	224.2	224.3	223.2	221.6	223.4	219.5	215.3	155.5	93.8
Savannah, Ga.....	212.4	208.5	215.3	216.0	215.0	219.2	222.4	223.3	228.3	224.5	223.3	221.4	213.6	158.5	96.7
Scranton, Pa.....	201.1	196.0	201.6	201.1	202.8	209.2	213.2	217.3	218.2	216.1	212.2	208.9	201.8	144.0	92.1
Seattle, Wash.....	213.5	213.6	214.4	211.8	213.4	217.5	221.0	221.9	223.4	220.3	221.4	215.5	212.5	151.6	94.5
Springfield, Ill.....	207.5	206.0	214.0	214.4	215.2	219.5	226.4	227.0	224.9	224.4	219.3	212.6	209.1	150.1	94.1
Washington, D. C.....	198.8	195.2	202.4	201.8	203.5	209.2	212.9	214.9	215.1	215.4	209.7	205.1	198.9	145.5	94.1
Wichita, Kans. <sup>1</sup> .....	215.1	213.0	219.0	220.4	222.2	220.0	222.0	224.7	226.7	226.4	225.3	226.3	215.9	154.4	94.4
Winston-Salem, N. C. <sup>1</sup> .....	197.8	195.6	203.7	206.6	206.1	212.7	215.6	215.8	212.9	209.5	208.4	206.0	202.7	145.3	94.4

<sup>1</sup> June 1940=100.<sup>2</sup> Estimated index based on half the usual sample of reports. Remaining

reports lost in the mails. Index for Feb. 15 reflects the correct level of food prices for New Orleans.



TABLE D-6: Average Retail Prices and Indexes of Selected Foods

Commodity	Average price Mar. 1949	Indexes 1935-39=100													
		Mar. 1949	Feb. 1949	Jan. 1949	Dec. 1948	Nov. 1948	Oct. 1948	Sept. 1948	Aug. 1948	July 1948	June 1948	May 1948	Apr. 1948	Mar. 1948	Aug. 1939
Cereals and bakery products:															
Cereals:	Cents														
Flour, wheat..... 5 pounds..	48.1	186.3	186.4	187.0	185.7	184.0	184.2	184.9	185.7	186.9	188.4	189.4	189.6	192.4	82.1
Corn flakes..... 11 ounces..	16.8	178.0	177.8	177.4	177.8	177.6	177.2	177.1	176.8	177.2	175.7	175.8	173.3	173.3	92.7
Corn meal..... pound..	9.5	185.1	186.4	189.0	194.9	199.5	210.5	214.0	215.2	215.5	213.7	215.7	216.4	216.6	90.7
Rice <sup>1</sup> ..... do..	19.1	107.3	107.4	107.2	107.6	109.4	112.1	121.1	121.5	120.6	119.6	118.6	118.4	118.1	(*)
Rolled oats <sup>1</sup> ..... 20 ounces..	16.7	151.8	152.2	155.5	155.8	155.2	155.5	155.6	155.4	155.2	155.0	154.8	154.8	153.5	(*)
Bakery products:															
Bread, white..... pound..	14.0	163.5	163.3	163.2	163.0	162.8	162.7	163.1	163.1	163.1	163.5	163.5	163.2	163.1	93.2
Vanilla cookies..... do..	45.5	194.4	194.3	195.6	194.9	194.1	193.0	192.4	191.7	192.1	190.3	188.8	189.2	187.9	(*)
Meats, poultry, and fish:															
Meats:															
Beef:															
Round steak..... do..	79.2	234.5	218.5	248.3	261.1	260.3	277.3	292.5	299.5	294.4	287.6	267.3	250.7	234.0	102.7
Rib roast..... do..	64.5	224.1	213.8	241.7	253.1	262.0	267.2	277.6	283.1	276.6	266.7	249.9	238.2	227.0	97.4
Chuck roast..... do..	52.7	235.0	224.3	257.7	276.8	291.5	301.1	315.0	322.2	315.5	309.6	283.4	263.3	249.6	97.1
Hamburger <sup>1</sup> ..... do..	50.1	161.9	156.8	175.9	181.7	184.6	193.7	199.2	202.5	199.3	194.7	178.6	166.3	158.0	(*)
Veal:															
Cutlets..... do..	99.8	250.0	251.9	248.7	248.7	248.4	253.6	258.5	259.6	256.1	252.5	245.6	234.9	226.8	101.1
Pork:															
Chops..... do..	73.7	223.5	201.6	203.4	204.6	219.7	254.1	278.6	276.5	252.7	238.1	233.5	223.2	212.1	90.8
Bacon, sliced..... do..	68.1	178.8	179.5	190.0	195.8	200.7	207.0	207.2	206.3	204.5	201.9	199.1	191.3	185.7	80.9
Ham, whole..... do..	63.8	217.2	213.3	222.5	233.3	227.2	239.4	253.3	251.1	244.2	231.2	223.7	220.9	213.6	92.7
Salt pork..... do..	35.5	169.7	171.1	191.6	211.6	200.1	200.2	196.1	194.1	196.0	196.6	203.5	209.9	214.7	69.0
Lamb:															
Leg..... do..	69.4	244.5	232.1	238.1	242.4	250.4	253.4	260.7	270.8	279.4	275.6	257.6	236.3	220.3	95.7
Poultry: Roasting chickens..... do..	59.9	198.9	199.0	208.9	208.0	200.5	204.0	209.4	207.8	209.3	207.6	202.1	198.4	194.7	94.6
Fish:															
Fish (fresh, frozen) <sup>1</sup> ..... do..	(*)	266.8	267.2	272.4	268.5	268.1	270.2	264.0	254.4	253.9	251.8	261.3	264.9	274.4	98.8
Salmon, pink <sup>1</sup> ..... 16-ounce can..	60.7	462.7	466.3	468.3	466.0	467.0	452.6	429.2	417.1	408.1	405.2	399.7	397.1	394.1	97.4
Dairy products:															
Butter..... pound..	73.4	201.8	203.6	205.9	207.6	205.7	212.7	232.7	245.6	252.0	249.8	254.2	255.4	237.4	84.0
Cheese..... do..	60.0	230.9	234.0	245.8	246.8	246.6	259.0	264.1	268.6	262.1	254.6	248.1	241.5	243.7	92.3
Milk, fresh (delivered)..... quart..	21.6	176.2	177.5	179.9	184.5	185.3	186.0	185.4	182.0	177.1	174.0	171.5	174.3	174.6	97.1
Milk, fresh (grocery)..... do..	20.3	179.8	182.4	185.7	189.4	191.4	191.1	189.4	187.8	182.1	179.3	177.3	179.0	179.5	96.3
Milk, evaporated..... 14 3/4-ounce can..	13.7	192.5	200.2	204.6	208.0	210.0	216.9	220.8	218.3	212.8	210.9	202.1	197.2	197.1	93.9
Eggs: Eggs, fresh..... dozen..	62.4	180.1	179.6	209.6	217.3	244.3	239.0	226.6	220.2	204.3	194.2	184.9	184.7	180.3	90.7
Fruits and vegetables:															
Fresh fruits:															
Apples..... pound..	15.2	289.8	275.5	255.7	241.5	229.1	220.7	216.7	225.1	265.3	269.2	229.1	208.2	205.6	81.6
Bananas..... do..	16.6	275.2	272.7	267.7	269.3	270.6	269.9	269.3	270.7	269.3	261.7	267.8	266.3	255.3	97.3
Oranges, size 200..... dozen..	49.7	175.8	165.7	168.4	153.7	151.0	192.1	187.2	183.3	169.2	155.1	149.2	142.9	145.1	96.9
Fresh vegetables:															
Beans, green..... pound..	21.2	194.3	222.0	234.6	173.3	224.9	155.1	172.0	176.0	187.7	185.1	229.1	229.5	191.2	61.7
Cabbage..... do..	8.1	211.9	179.2	163.7	142.5	133.7	139.7	136.5	139.2	155.1	180.1	202.3	250.5	174.8	103.2
Carrots..... bunch..	9.9	184.3	196.7	199.9	184.2	184.3	191.6	190.8	183.6	202.1	263.2	310.1	254.3	227.8	84.9
Lettuce..... head..	18.4	223.3	220.2	185.9	170.8	158.9	163.0	176.2	143.1	177.8	164.1	200.7	159.9	138.0	97.6
Onions..... pound..	6.1	148.1	153.9	155.7	156.9	154.6	147.8	154.2	176.3	251.9	262.4	291.0	440.9	386.2	80.8
Potatoes..... 15 pounds..	85.5	237.2	237.9	225.5	208.3	199.1	202.4	210.8	223.5	248.4	263.5	261.7	253.6	247.0	91.9
Spinach..... pound..	15.3	213.8	259.4	202.3	163.2	155.1	161.2	183.9	205.0	174.7	145.0	158.4	167.4	171.5	118.4
Sweetpotatoes..... do..	12.1	234.2	220.9	211.4	198.1	181.9	181.1	196.2	235.5	286.9	273.4	225.2	213.1	208.3	115.7
Canned fruits:															
Peaches..... No. 2 1/2 can..	32.4	168.2	168.4	160.0	168.2	168.2	166.5	165.1	163.0	161.6	160.8	160.8	160.6	161.0	92.8
Pineapple..... do..	39.7	182.5	182.6	180.4	181.3	178.1	176.2	174.4	170.0	168.5	168.1	166.7	166.3	164.3	96.0
Canned vegetables:															
Corn..... No. 2 can..	19.8	159.8	159.4	160.2	160.4	159.7	160.2	159.3	158.8	158.6	158.2	157.9	156.6	156.9	88.6
Peas..... do..	15.1	115.3	117.0	117.1	117.2	117.5	116.7	116.9	115.8	113.5	112.8	112.3	113.5	115.5	89.8
Tomatoes..... do..	15.9	177.1	178.3	179.6	180.0	181.4	181.3	183.2	182.6	184.7	184.8	183.0	183.2	186.2	92.5
Dried fruits: Prunes..... pound..	22.8	224.0	220.9	218.9	216.6	211.6	209.1	205.6	204.7	204.9	204.3	206.9	208.6	211.2	94.7
Dried vegetables: Navy beans..... do..	16.9	230.0	226.4	239.1	246.2	255.7	278.2	311.5	312.9	309.7	310.5	311.6	314.3	314.9	83.0
Beverages: Coffee..... do..	52.3	208.1	208.6	208.3	207.4	206.0	205.5	205.2	204.9	204.8	204.7	204.2	204.0	204.0	93.3
Fats and oils:															
Lard..... do..	19.6	131.1	133.2	163.2	181.0	191.4	196.1	198.5	197.3	198.1	198.5	198.2	194.1	191.9	65.2
Hydrogenated veg. shortening <sup>1</sup> ..... do..	36.6	176.8	187.1	197.2	202.8	204.9	205.6	207.3	209.6	220.3	218.2	211.4	207.1	214.4	93.9
Salad dressing..... pint..	36.7	151.5	156.1	159.3	162.7	163.7	165.7	168.6	168.3	168.4	167.1	164.4	159.8	159.0	(*)
Margarine..... pound..	33.1	181.9	186.7	199.0	208.6	213.4	220.4	229.8	235.3	240.1	242.0	232.6	223.9	224.0	93.6
Sugar and sweets:															
Sugar..... do..	9.5	176.3	175.1	174.2	173.8	174.2	174.0	174.0	173.2	171.8	171.4	173.8	174.5	175.3	95.6

<sup>1</sup> July 1947=100.<sup>2</sup> Index not computed.<sup>3</sup> February 1943=100.<sup>4</sup> Not priced in earlier period.<sup>5</sup> 1938-39=100.<sup>6</sup> Average price not computed.<sup>7</sup> Formerly published as shortening in other containers.

TABLE D-7: Indexes of Wholesale Prices,<sup>1</sup> by Group of Commodities, for Selected Periods  
[1926=100]

Year and month	All commodities <sup>2</sup>	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products <sup>3</sup>	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products <sup>4</sup>	All commodities except farm products <sup>5</sup>	All commodities except farm products and foods <sup>6</sup>
1913: Average	69.8	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.1	93.1	68.8	74.9	69.4	69.0	70.0
1914: July	67.3	71.4	62.9	69.7	55.3	55.7	79.1	52.9	77.9	56.7	88.1	67.3	67.8	66.9	65.7	65.7
1918: November	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0	129.9
1920: May	167.2	169.8	147.3	193.2	188.3	159.8	155.5	164.4	173.7	143.3	176.5	163.4	253.0	157.8	165.4	170.6
1929: Average	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3	91.6
1932: Average	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3	70.2
1939: Average	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	70.2	77.0	80.4	79.5	81.3
August	75.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	66.5	74.5	79.1	77.9	80.1
1940: Average	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8	83.0
1941: Average	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	83.5	86.9	89.1	88.3	89.0
December	93.6	94.7	90.5	114.8	91.8	78.4	103.3	107.8	90.4	101.1	87.6	92.3	90.1	94.6	93.3	93.7
1942: Average	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0	95.5
1943: Average	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7	96.9
1944: Average	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6	98.5
1945: Average	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	95.9	101.8	100.8	99.7
August	105.7	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9	99.9
1946: Average	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	110.8	116.1	114.9	109.5
June	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	126.3	105.7	107.3	106.7	105.6
November	139.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9	120.7
1947: Average	152.1	181.2	168.7	182.4	141.7	108.7	145.0	179.7	127.3	131.1	115.5	165.6	148.5	146.0	145.5	135.2
1948: Average	165.0	188.3	179.1	188.8	148.6	134.1	163.6	199.0	135.1	144.5	120.5	178.4	156.6	159.4	159.6	150.7
March	161.4	186.0	173.8	185.4	149.8	130.9	155.9	193.1	136.1	142.0	120.8	174.7	152.9	155.8	155.7	147.7
April	162.8	186.7	176.7	186.1	150.3	131.5	157.2	195.0	136.2	142.3	121.8	175.5	154.1	157.6	157.3	148.7
May	163.9	189.1	177.4	188.4	150.2	132.6	157.1	196.4	134.7	142.6	121.5	177.6	153.8	158.5	158.2	149.1
June	166.2	196.0	181.4	187.7	149.6	133.1	158.5	196.8	135.8	143.2	121.5	182.6	154.5	159.6	159.4	149.5
July	168.7	195.2	188.3	189.2	149.4	135.7	162.2	199.9	134.4	144.5	120.3	184.3	155.9	162.6	162.6	151.1
August	169.5	191.0	189.5	188.4	148.9	136.6	170.9	203.6	132.0	145.4	119.7	182.0	159.6	164.6	164.6	153.1
September	168.7	189.9	186.9	187.5	147.9	136.7	172.0	204.0	133.3	146.6	119.9	181.0	158.8	163.9	163.8	153.3
October	165.2	183.5	178.2	185.5	146.9	137.2	172.4	203.5	134.8	147.5	119.0	177.0	158.4	160.2	161.0	153.2
November	164.0	180.8	174.3	186.2	147.5	137.3	173.3	203.0	133.9	148.2	119.2	175.2	161.0	158.7	160.1	153.5
December	162.3	177.3	170.2	185.3	146.7	137.0	173.8	202.1	130.6	148.4	118.5	172.1	160.8	157.5	158.8	153.0
1949: January	160.6	172.5	165.8	184.8	146.1	137.1	175.6	* 202.3	* 126.3	* 148.1	117.3	169.3	160.4	156.2	* 157.8	152.9
February	158.1	168.3	161.5	182.3	145.2	135.9	175.5	* 201.5	* 122.8	* 148.3	115.3	165.8	159.6	154.0	* 155.7	151.8
March	158.4	171.3	162.9	180.4	143.7	134.4	174.4	200.0	121.1	148.1	115.7	167.2	157.0	154.1	155.3	150.8

<sup>1</sup> BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from 1-day-a-week prices; the monthly index from an average of these prices. Monthly indexes for the last 2 months are preliminary.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929-31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Mimeographed tables are available, upon request to the Bureau giving monthly indexes for major groups of commodities since 1890 and for subgroups and economic groups since 1913. The weekly wholesale price indexes are

available in summary form since 1947 for all commodities; all commodities less farm products and foods; farm products; foods; textile products; fuel and lighting materials; metals and metal products; and building materials. Weekly indexes are also available for the subgroups of grains, livestock, meats, and hides and skins.

<sup>2</sup> Includes current motor vehicle prices beginning with October 1946. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

\* Corrected.



TABLE D-8: Indexes of Wholesale Prices,<sup>1</sup> by Group and Subgroup of Commodities

[1926=100]

Group and subgroup	1949			1948										1946	1939
	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	June	Aug.
All commodities <sup>1</sup>	158.4	158.1	160.6	162.3	164.0	165.2	168.7	169.5	168.7	166.2	163.9	162.8	161.4	112.9	75.0
Farm products	171.3	168.3	172.5	177.3	180.8	183.5	189.9	191.0	195.2	196.0	189.1	186.7	186.0	140.1	61.0
Grains	162.6	157.2	167.7	171.1	171.1	170.4	176.9	179.2	190.6	209.2	213.5	217.9	218.0	151.8	51.5
Livestock and poultry <sup>2</sup>	195.0	187.2	194.7	204.6	213.4	223.4	244.2	250.0	250.8	239.2	219.0	204.4	209.4	137.4	66.0
Livestock	209.5	201.1	209.9	221.7	234.1	246.9	268.8	273.3	272.8	259.5	236.1	219.7	224.1	143.4	67.7
Other farm products	158.3	158.9	159.4	161.4	162.6	162.0	159.6	157.8	161.9	165.4	163.3	166.4	162.2	137.5	60.1
Foods	162.9	161.5	165.8	170.2	174.3	178.2	186.9	189.5	188.3	181.4	177.4	176.7	173.8	112.9	67.2
Dairy products	154.8	159.8	163.6	171.2	170.7	174.9	179.9	185.1	182.9	181.3	176.6	181.0	179.8	127.3	67.9
Cereal products	146.5	146.7	148.0	149.8	150.5	149.6	153.3	154.0	154.5	155.1	156.3	158.0	158.6	101.7	71.9
Fruits and vegetables	151.7	152.3	145.3	139.8	139.6	137.1	139.4	140.5	151.2	147.7	147.0	148.6	145.7	136.1	88.5
Meats, poultry, and fish <sup>3</sup>	214.8	205.1	214.2	220.8	227.4	239.8	266.5	273.7	263.8	241.3	233.2	226.0	217.1	110.1	73.7
Meats	222.4	212.5	222.8	230.8	240.0	255.0	277.4	279.6	277.2	265.1	262.3	251.5	240.6	116.6	78.1
Other foods	126.6	127.5	134.4	140.9	149.4	150.4	149.1	146.9	148.5	148.1	144.2	144.4	144.3	98.1	60.3
Hides and leather products	180.4	182.3	184.8	185.3	186.2	185.5	187.5	188.4	189.2	187.7	188.4	186.1	185.4	122.4	92.7
Shoes	187.8	187.8	187.8	188.0	188.1	189.7	190.0	189.4	186.3	185.8	185.6	191.7	193.8	129.5	100.8
Hides and skins	181.8	185.9	198.7	197.2	206.0	202.0	210.6	212.1	220.3	215.2	218.0	199.3	186.2	121.5	77.2
Leather	178.9	183.9	185.4	186.5	183.8	180.4	181.9	186.0	189.2	186.9	188.2	183.6	185.9	110.7	84.0
Other leather products	145.6	145.4	145.4	148.6	148.6	148.6	148.6	148.6	149.9	150.9	150.9	143.3	143.8	115.2	97.1
Textile products	143.7	145.2	146.1	146.7	147.5	146.9	147.9	148.9	149.4	149.6	150.2	150.3	149.8	109.2	67.8
Clothing	147.0	147.3	147.7	148.8	149.1	148.8	148.6	148.3	148.3	145.2	145.8	145.8	144.6	120.3	81.5
Cotton goods	180.1	184.8	186.9	189.2	191.7	195.0	199.8	205.3	209.3	213.1	217.8	219.2	218.3	139.4	65.5
Hosiery and underwear	101.2	101.3	102.5	103.7	104.0	104.6	104.8	104.9	104.9	105.3	105.4	105.4	105.4	75.8	61.5
Rayon and nylon <sup>4</sup>	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.6	40.7	40.7	40.7	40.7	40.7	30.2	28.5
Silk <sup>5</sup>	50.1	50.1	50.1	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	(9)	44.3
Woolen and worsted	161.8	162.1	161.6	159.6	159.6	150.7	150.0	149.4	147.5	147.5	147.5	147.5	145.7	112.7	75.5
Other textile products	184.9	186.9	189.0	190.0	190.5	190.5	189.3	186.6	184.5	183.1	174.2	170.0	174.7	112.3	63.7
Fuel and lighting materials	134.4	135.9	137.1	137.0	137.3	137.2	136.7	136.6	135.7	133.1	132.6	131.6	130.9	87.8	72.6
Anthracite	137.9	138.0	137.7	136.4	136.4	136.4	136.5	136.0	131.6	127.1	125.5	124.6	124.6	106.1	72.1
Bituminous coal	195.5	*196.9	*196.5	194.9	195.1	195.1	195.1	194.6	193.1	182.6	181.8	178.9	177.9	132.8	96.6
Coke	222.9	222.9	220.5	219.0	219.0	218.7	217.5	217.4	212.3	206.6	205.4	197.6	190.6	133.5	104.2
Electricity	(3)	(2)	67.7	67.7	67.3	66.5	66.3	65.5	66.4	65.7	65.4	66.1	65.7	67.2	75.8
Gas	(5)	91.9	*88.1	*91.0	92.6	90.9	90.7	86.9	90.4	90.7	89.3	89.1	88.7	79.6	86.7
Petroleum and products	115.9	118.7	121.3	122.0	122.8	122.8	122.2	122.1	122.1	122.1	122.1	121.8	121.8	64.0	51.7
Metals and metal products <sup>1</sup>	174.4	175.5	175.6	173.8	173.3	172.4	172.0	170.9	162.2	158.5	157.1	157.2	155.9	112.2	93.2
Agricultural machinery and equipment <sup>2</sup>	144.2	*144.2	*144.1	143.9	143.5	142.5	140.5	135.6	134.1	132.2	130.5	129.8	129.3	104.5	93.5
Farm machinery <sup>3</sup>	146.7	*146.7	*146.6	146.5	146.0	144.9	142.8	137.7	136.3	134.1	132.1	131.3	130.8	104.9	94.7
Iron and steel	168.4	169.1	169.1	165.4	165.0	164.5	164.0	163.1	153.2	149.4	148.9	149.4	147.7	110.1	95.1
Motor vehicles <sup>4</sup>	175.2	175.8	175.8	175.7	175.3	175.3	175.0	174.1	168.2	163.9	161.7	161.6	161.6	135.5	92.5
Passenger cars <sup>5</sup>	182.5	183.2	183.2	183.3	183.2	183.2	182.9	181.9	175.0	171.0	169.0	169.0	169.0	142.8	95.6
Trucks <sup>6</sup>	142.4	142.4	142.4	142.0	140.4	140.3	140.2	139.7	137.3	132.1	129.7	129.2	129.3	104.3	77.4
Nonferrous metals	168.4	172.5	172.5	172.5	171.4	167.0	166.4	165.9	153.7	152.1	150.0	149.8	146.8	99.2	74.6
Plumbing and heating	155.3	156.1	156.9	157.3	157.3	157.3	157.0	153.9	145.3	145.3	143.2	138.7	138.7	106.0	79.3
Building materials	200.0	*201.5	*202.3	202.1	203.0	203.5	204.0	203.6	199.9	196.8	196.4	195.0	193.1	129.9	89.6
Brick and tile	162.4	*162.4	162.5	160.5	160.4	160.1	158.9	158.6	157.9	153.3	152.8	152.5	151.6	121.3	90.5
Cement	134.3	*134.3	*134.1	133.5	133.7	133.7	133.3	133.2	132.2	128.8	128.2	127.5	127.4	102.6	91.3
Lumber	294.7	*296.9	*299.5	305.5	310.7	314.5	317.1	319.5	318.1	313.2	312.9	309.2	303.8	176.0	90.1
Paint and paint materials	162.3	165.6	166.3	161.5	161.6	160.4	160.2	158.1	157.9	158.7	158.4	158.6	156.7	108.6	82.1
Prepared paint	151.3	151.3	151.3	142.9	142.9	142.9	142.9	142.9	142.9	142.9	143.1	143.1	143.1	99.3	92.9
Paint materials	177.4	184.3	185.8	184.8	185.2	182.5	182.2	177.6	177.3	179.1	178.2	178.5	174.7	120.9	71.8
Plumbing and heating	155.3	156.1	156.9	157.3	157.3	157.3	157.0	153.9	145.3	145.3	143.2	138.7	138.7	106.0	79.2
Structural steel	178.8	178.8	178.8	178.8	178.8	178.8	178.8	178.8	159.6	153.3	153.3	155.8	155.8	120.1	107.3
Other building materials	178.3	179.1	179.1	176.9	175.6	174.8	174.8	173.4	167.1	163.5	163.1	162.2	161.8	118.4	89.5
Chemicals and allied products	121.1	*122.8	*126.3	130.6	133.9	134.8	133.3	132.0	134.4	135.8	134.7	136.2	136.1	96.4	74.2
Chemicals	118.4	*119.6	*122.2	122.4	124.8	127.5	126.0	126.3	127.8	126.2	125.9	126.8	126.8	98.0	83.8
Drug and pharmaceutical materials	142.4	148.9	*150.4	151.4	151.9	152.6	152.7	153.3	153.6	153.7	153.3	153.8	154.4	109.4	77.1
Fertilizer materials	119.6	120.8	120.8	120.1	119.5	117.2	116.2	114.9	115.0	113.9	115.0	115.2	114.9	82.7	65.5
Mixed fertilizers	108.3	108.3	108.7	108.3	107.9	107.9	107.8	105.9	104.4	103.2	103.2	103.1	103.1	86.6	73.1
Oils and fats	129.3	131.7	146.1	179.4	195.1	192.9	188.6	180.3	193.2	212.7	205.0	212.3	211.4	102.1	40.6
Housefurnishing goods	148.1	*148.3	*148.1	148.4	148.2	147.5	146.6	145.4	144.5	143.2	142.6	142.3	142.0	110.4	85.6
Furnishings	154.0	154.2	*153.4	153.6	153.6	152.5	151.5	149.3	148.6	146.7	145.8	145.2	144.7	114.5	90.0
Furniture <sup>7</sup>	142.1	142.4	142.8	143.1	142.8	142.5	141.6	141.6	140.4	139.9	139.6	139.6	139.4	108.5	81.1
Miscellaneous	115.7	115.3	117.3	118.5	119.2	119.0	119.9	119.7	120.3	121.5	121.5	121.8	120.8	98.5	73.3
Tires and tubes <sup>8</sup>	64.6	64.7	65.5	66.2	66.2	66.2	66.2	66.2	66.2	63.5	63.5				

<sup>1</sup> See footnote 1, table D-7.<sup>2</sup> See footnote 2, table D-7.<sup>3</sup> Not available.

\* Corrected.

\* Revised.

## E: Work Stoppages

TABLE E-1: Work Stoppages Resulting From Labor-Management Disputes<sup>1</sup>

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	-----	1,130,000	-----	16,900,000	0.2
1945.....	4,750	-----	3,470,000	-----	38,000,000	.4
1946.....	4,985	-----	4,600,000	-----	116,000,000	1.4
1947.....	3,663	-----	2,170,000	-----	34,600,000	.4
1948.....	3,419	-----	1,960,000	-----	34,100,000	.3
1948: March.....	271	426	494,000	552,000	6,440,000	.5
April.....	319	496	174,000	621,000	7,410,000	.5
May.....	339	553	168,000	344,000	4,080,000	.5
June.....	349	565	169,000	243,000	2,220,000	.2
July.....	394	614	218,000	307,000	2,670,000	.3
August.....	355	603	143,000	232,000	2,100,000	.2
September.....	299	553	158,000	267,000	2,540,000	.2
October.....	256	468	110,000	194,000	2,060,000	.2
November.....	216	388	111,000	189,000	1,910,000	.2
December.....	144	283	40,500	93,100	713,000	.6
1949: January <sup>2</sup> .....	225	400	70,000	110,000	800,000	.1
February <sup>2</sup> .....	225	350	80,000	120,000	650,000	.1
March <sup>2</sup> .....	275	400	500,000	540,000	3,600,000	.4

<sup>1</sup> All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establish-

ments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

<sup>2</sup> Preliminary estimates.

## F: Building and Construction

TABLE F-1: Expenditures for New Construction<sup>1</sup>

[Value of work put in place]

Type of construction	Expenditures (in millions)															
	1949 <sup>1</sup>				1948 <sup>2</sup>										1948 <sup>2</sup>	1947 <sup>2</sup>
	Apr. <sup>3</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Total	Total	
Total new construction <sup>4</sup> .....	\$1,368	\$1,248	\$1,148	\$1,269	\$1,447	\$1,646	\$1,814	\$1,901	\$1,934	\$1,874	\$1,754	\$1,572	\$1,378	\$18,775	\$14,324	
Private construction.....	987	928	880	977	1,129	1,256	1,355	1,427	1,454	1,423	1,348	1,222	1,099	14,563	11,179	
Residential building (nonfarm).....	440	400	375	450	547	615	670	707	720	707	682	625	550	7,223	5,260	
Nonresidential building (nonfarm) <sup>5</sup> .....	252	262	271	285	305	325	327	331	329	321	303	275	263	3,578	3,131	
Industrial.....	89	96	104	110	114	116	116	116	113	110	110	111	116	1,397	1,702	
Commercial.....	76	79	78	82	93	106	110	119	123	124	114	96	87	1,224	835	
Warehouses, office and loft buildings.....	23	25	27	29	31	32	32	32	31	28	26	24	23	323	216	
Stores, restaurants, and garages.....	53	54	51	53	62	74	78	87	92	96	88	72	64	901	619	
Other nonresidential building.....	87	87	89	93	98	103	101	96	93	87	79	68	60	957	594	
Religious.....	24	24	25	26	27	28	27	25	23	21	18	16	13	236	118	
Educational.....	19	20	21	22	24	25	25	24	23	21	19	16	16	239	164	
Social and recreational.....	19	19	19	20	21	23	23	22	22	20	18	15	13	211	92	
Hospital and institutional.....	12	11	11	10	10	10	10	10	10	10	10	10	9	116	107	
Remaining types <sup>6</sup> .....	13	13	13	15	16	17	16	15	15	15	14	11	9	155	113	
Farm construction.....	30	18	10	12	13	22	39	63	82	81	62	60	37	500	450	
Public utilities <sup>7</sup> .....	265	248	224	230	264	294	319	326	323	314	301	272	249	3,262	2,338	
Railroad.....	27	27	25	27	33	36	39	38	36	34	33	34	25	379	318	
Telephone and telegraph.....	62	57	46	45	50	60	61	61	63	65	65	62	63	713	510	
Other public utilities.....	176	164	153	158	175	198	219	227	224	215	203	176	161	2,170	1,510	
Public construction <sup>8</sup> .....	381	320	268	292	318	390	459	474	480	451	406	350	279	4,212	3,145	
Residential building.....	13	10	8	8	7	7	7	7	7	7	7	7	7	85	186	
Nonresidential building (other than military or naval facilities).....	135	122	107	109	110	116	115	109	103	95	85	79	73	1,057	505	
Educational.....	70	64	60	60	61	62	60	57	53	49	44	42	39	567	275	
Hospital and institutional.....	35	31	26	27	27	27	26	25	23	21	18	15	13	219	81	
All other nonresidential.....	30	27	21	22	22	27	29	27	27	25	23	22	21	271	149	
Military and naval facilities.....	9	9	7	7	9	11	11	11	12	11	11	12	13	137	204	
Highways.....	100	68	52	68	83	131	186	200	220	206	179	140	89	1,585	1,300	
Sewer and water.....	46	42	39	41	42	45	47	49	47	46	43	40	38	481	331	
Miscellaneous public service enterprises <sup>9</sup> .....	8	8	5	6	5	7	10	10	10	11	11	11	9	108	117	
Conservation and development.....	53	46	39	40	50	58	66	71	65	59	55	47	38	597	386	
All other public <sup>10</sup> .....	17	15	11	13	12	15	17	17	16	16	15	14	12	162	116	

<sup>1</sup> Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Office of Domestic Commerce, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for urban building authorized and the data on value of contract awards reported in table F-2.

<sup>2</sup> Revised.

<sup>3</sup> Preliminary.

<sup>4</sup> Includes major additions and alterations.

<sup>5</sup> Excludes nonresidential building by privately owned public utilities.

<sup>6</sup> Hotels and miscellaneous buildings not elsewhere classified.

<sup>7</sup> Includes nonresidential building.

<sup>8</sup> Excludes expenditures to construct facilities used in atomic energy projects.

<sup>9</sup> Covers primary publicly owned electric light and power systems and local transit facilities.

<sup>10</sup> Airports, navigational aids, monuments, etc.



TABLE F-2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed New Construction, by Type of Construction <sup>1</sup>

Period	Value (in thousands)															
	Total new construction <sup>1</sup>	Airports <sup>2</sup>	Building									Conservation and development			Highways	All other <sup>6</sup>
			Total	Residential	Nonresidential						Total	Reclamation	River, harbor, and flood control			
					Total	Educational <sup>4</sup>	Hospital and institutional			Administration and general <sup>5</sup>				Other non-residential		
							Total	Veterans <sup>6</sup>	Other							
1936.....	\$1,533,439	(7)	\$561,394	\$63,465	\$497,929	(8)	(8)	(8)	(8)	(8)	(8)	\$189,710	\$73,797	\$115,913	\$511,685	\$270,650
1939.....	1,586,604	\$4,753	660,222	231,071	438,151	(8)	(8)	(8)	(8)	(8)	(8)	225,423	115,612	109,811	355,701	331,505
1942.....	7,775,497	579,176	6,130,389	540,472	5,580,917	(8)	(8)	(8)	(8)	(8)	(8)	217,795	150,708	67,087	347,988	500,149
1946.....	1,450,252	14,859	549,656	435,453	114,203	(8)	(8)	(8)	(8)	(8)	(8)	300,405	169,253	131,152	535,784	49,548
1947.....	1,294,069	24,645	276,514	51,186	225,328	\$47,692	\$101,931	\$96,123	\$5,708	\$31,159	\$44,646	308,029	77,095	230,934	657,087	27,794
1948.....	1,690,192	49,718	332,793	8,328	324,465	1,417	246,242	168,015	78,227	28,797	48,009	494,604	147,921	346,683	769,089	43,978
1948: February.....	165,424	1,586	47,130	859	46,271	165	41,779	41,557	222	1,735	2,592	65,119	1,229	63,890	50,194	1,395
March.....	148,775	5,672	65,480	61	65,419	257	58,624	56,213	2,411	1,230	5,308	22,520	6,721	15,799	51,582	3,521
April.....	161,049	3,840	10,131	553	9,578	12	5,666	5,049	617	1,863	2,037	84,888	56,944	27,904	58,247	3,943
May.....	120,385	5,606	26,193	462	25,731	469	21,461	20,044	1,417	1,859	1,942	10,481	4,738	5,743	75,645	2,460
June.....	146,422	4,930	43,751	790	42,961	89	19,201	13,876	5,325	9,661	14,010	24,551	8,877	15,674	68,518	4,672
July.....	147,286	5,211	15,442	254	15,188	0	10,556	1,493	9,063	1,177	3,455	41,947	1,327	40,620	78,428	6,258
August.....	133,698	6,580	11,599	120	11,479	4	8,628	872	7,756	1,041	1,806	22,423	4,269	18,154	91,310	1,786
September.....	130,985	8,259	24,053	66	23,987	31	15,933	13,273	2,660	2,674	5,349	29,091	2,959	26,132	65,965	3,617
October.....	143,856	3,568	41,449	785	40,664	0	34,475	6,481	27,994	3,231	2,958	37,166	19,488	17,678	55,747	5,926
November.....	107,157	2,535	12,470	2,374	10,096	84	7,408	436	6,972	844	1,760	35,402	13,895	21,507	51,672	5,078
December.....	165,208	1,039	20,425	1,855	18,570	0	13,566	95	13,471	1,521	3,483	66,901	22,558	44,343	74,085	2,758
1949: January <sup>9</sup> .....	87,542	(8)	36,810	87	36,723	148	8,122	359	7,763	24,784	3,669	14,977	7,596	7,381	34,465	1,290
February <sup>9</sup> .....	94,727	(8)	39,110	1,970	37,140	635	10,023	5,468	4,555	22,615	3,867	23,966	3,079	20,887	28,961	2,690
March <sup>10</sup> .....	161,737	(8)	30,681	1,420	29,261	0	22,735	9,318	13,417	1,576	4,950	82,566	22,536	60,030	41,613	6,877

<sup>1</sup> Excludes projects classified as "secret" by the military, and all construction for the Atomic Energy Commission. Data for Federal-aid programs cover amounts contributed by both the owner and the Federal Government. Force-account work is done, not through a contractor, but directly by a government agency, using a separate work force to perform nonmaintenance construction on the agency's own properties.

<sup>2</sup> Includes major additions and alterations.

<sup>3</sup> Excludes hangars and other buildings, which are included under "Other nonresidential" building construction.

<sup>4</sup> Includes educational facilities under the Federal temporary re-use educational facilities program.

<sup>5</sup> Includes post offices, armories, offices, and customs houses. Includes contract awards for construction at United Nations Headquarters at New York City as follows: September 1948, \$497,000; January 1949, \$23,810,000.

<sup>6</sup> Includes electrification projects, water-supply and sewage-disposal systems, forestry projects, railroad construction, and other types of projects not elsewhere classified.

<sup>7</sup> Included in "All other."

<sup>8</sup> Unavailable.

<sup>9</sup> Revised.

<sup>10</sup> Preliminary.

TABLE F-3: Urban Building Authorized, by Principal Class of Construction and by Type of Building<sup>1</sup>

Period	Valuation (in thousands)									Number of new dwelling units—House-keeping only				
	Total all classes <sup>2</sup>	New residential building						New nonresidential building	Additions, alterations, and repairs	Privately financed				Publicly financed
		Housekeeping				Non-house-keeping <sup>3</sup>								
		Privately financed dwelling units					Publicly financed dwelling units							
		Total	1-family	2-family <sup>1</sup>	Multi-family <sup>4</sup>									
1942.....	\$2,707,573	\$598,570	\$478,658	\$42,629	\$77,283	\$296,933	\$22,910	\$1,510,688	\$278,472	184,892	138,908	15,747	30,237	95,946
1946.....	4,743,414	2,114,833	1,830,260	103,042	181,531	355,587	43,369	1,458,602	771,023	430,195	358,151	24,326	47,718	98,310
1947.....	5,561,754	2,892,003	2,362,600	156,757	372,646	35,177	29,831	1,712,817	891,926	503,094	393,720	34,105	75,269	5,100
1948.....	6,961,820	3,431,664	2,747,206	184,141	500,317	136,459	38,034	2,354,314	1,001,349	517,112	392,779	36,650	87,683	14,760
1948: February.....	417,055	203,870	146,701	8,954	48,215	9,430	1,447	141,419	60,889	32,192	22,098	1,863	8,231	1,146
March.....	629,939	318,589	250,451	20,046	48,092	313	4,082	223,592	83,363	50,576	37,378	4,094	9,104	43
April.....	717,982	411,152	317,604	34,650	58,898	4,156	6,170	196,825	99,679	64,400	45,699	7,041	11,660	509
May.....	655,385	347,501	291,208	17,894	38,399	4,294	2,729	206,971	93,890	52,523	41,423	3,769	7,331	581
June.....	705,851	366,417	301,690	16,501	48,226	4,138	4,710	224,321	106,265	54,260	42,110	3,343	8,807	521
July.....	658,309	324,595	264,596	15,928	44,071	11,739	3,167	222,990	95,818	47,515	36,666	2,974	7,875	1,260
August.....	653,520	349,753	264,725	13,489	71,539	9,215	3,186	197,059	94,307	46,993	35,913	2,332	8,748	958
September.....	592,984	268,806	228,003	14,157	26,646	17,295	3,163	218,121	85,599	39,466	31,750	2,837	4,879	1,750
October.....	590,922	258,238	217,735	11,834	28,669	13,779	2,728	235,891	80,286	38,465	31,189	2,393	4,883	1,541
November.....	477,462	215,081	178,348	9,143	27,590	23,913	1,490	167,666	69,312	32,584	25,642	1,729	5,213	2,205
December.....	432,979	168,483	135,189	10,043	23,251	29,712	1,940	166,872	65,972	25,549	19,225	1,995	4,329	3,277
1949: January <sup>6</sup> .....	409,729	143,359	111,019	9,607	22,733	32,910	1,120	171,911	60,429	23,411	16,730	1,919	4,762	3,660
February <sup>7</sup> .....	386,616	156,008	118,322	6,436	31,250	23,439	1,627	145,881	59,661	24,718	18,322	1,333	5,063	2,480

<sup>1</sup> Building for which building permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits.

The data cover federally and nonfederally financed building construction combined. Estimates of non-Federal (private, and State and local government) urban building construction are based primarily on building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. Data from building permits are not adjusted to allow for lapsed permits or for lag between permit issuance and the start of construction. Thus, the estimates do not represent construction actually started during the month.

Urban, as defined by the Bureau of the Census, covers all incorporated places of 2,500 population or more in 1940, and, by special rule, a small number of unincorporated civil divisions.

<sup>2</sup> Covers additions, alterations, and repairs, as well as new residential and nonresidential building.

<sup>3</sup> Includes units in 1-family and 2-family structures with stores.

<sup>4</sup> Includes units in multifamily structures with stores.

<sup>5</sup> Covers hotels, dormitories, tourist cabins, and other nonhousekeeping residential buildings.

<sup>6</sup> Revised.

<sup>7</sup> Preliminary.



TABLE F-4: New Nonresidential Building Authorized in All Urban Places,<sup>1</sup>  
by General Type and by Geographic Division<sup>2</sup>

Geographic division and type of new nonresidential building	Valuation (in thousands)														
	1949		1948											1948	1947
	Feb. <sup>4</sup>	Jan. <sup>3</sup>	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Total	Total
All types.....	\$145,881	\$171,911	\$166,872	\$167,666	\$235,891	\$218,121	\$197,059	\$222,990	\$224,321	\$206,971	\$196,825	\$223,592	\$141,419	\$2,354,314	\$1,712,817
New England.....	6,529	4,607	8,092	8,288	12,737	9,577	10,533	15,723	21,234	10,289	10,278	8,955	5,236	147,633	109,977
Middle Atlantic.....	16,657	47,775	28,386	29,254	43,850	30,241	33,027	30,777	33,605	50,912	27,525	55,091	20,250	392,348	272,626
East North Central.....	21,263	40,516	34,823	32,256	54,209	55,258	49,368	58,209	56,373	37,567	45,401	34,903	26,619	506,435	371,948
West North Central.....	7,758	10,812	11,345	11,624	22,623	14,832	17,026	12,173	13,671	12,079	15,177	16,435	16,566	172,407	132,163
South Atlantic.....	38,115	17,961	16,589	18,709	26,463	24,372	18,773	35,759	24,991	19,744	22,841	25,267	14,562	266,635	200,053
East South Central.....	7,944	5,394	9,890	5,197	15,399	10,613	9,905	6,779	8,883	8,884	6,175	9,957	3,928	102,763	73,009
West South Central.....	21,107	17,869	17,726	26,047	16,476	25,526	15,019	27,156	20,360	24,690	21,803	21,922	27,433	271,383	193,221
Mountain.....	3,507	4,840	4,751	3,310	5,697	18,289	8,776	7,779	4,429	7,818	6,442	8,725	3,826	82,603	58,162
Pacific.....	23,001	22,135	35,270	32,979	38,436	29,415	34,630	28,634	40,773	34,988	41,182	42,340	22,999	412,106	301,658
Industrial buildings <sup>1</sup> .....	16,855	26,085	19,964	20,387	33,631	21,120	27,043	24,351	33,059	26,233	26,820	32,509	16,819	299,371	322,230
New England.....	858	378	1,445	1,483	2,569	914	546	3,526	2,365	2,360	971	1,806	1,051	19,840	26,098
Middle Atlantic.....	3,862	4,128	5,083	7,347	4,955	3,035	7,220	5,119	5,165	8,375	7,439	6,421	3,598	65,934	58,139
East North Central.....	4,568	16,013	7,600	4,993	8,137	9,423	9,511	9,217	15,602	7,997	9,262	9,513	3,896	100,034	118,607
West North Central.....	1,746	860	996	882	822	756	1,957	713	2,039	908	3,081	1,728	1,205	16,058	19,890
South Atlantic.....	2,682	1,173	1,454	2,010	6,972	1,262	1,670	1,180	2,159	1,496	1,519	4,469	1,640	27,776	20,549
East South Central.....	600	826	843	458	1,506	507	1,023	452	1,465	691	225	1,088	330	9,054	13,426
West South Central.....	557	751	244	786	1,431	980	1,799	1,836	1,023	1,316	760	2,410	1,637	15,863	17,519
Mountain.....	197	551	380	69	413	367	119	65	248	147	79	383	119	2,769	2,852
Pacific.....	1,785	1,405	1,919	2,959	6,826	3,876	3,198	2,243	2,993	2,943	3,484	4,691	3,343	42,043	45,090
Commercial buildings <sup>2</sup> .....	57,512	55,268	53,528	66,917	84,905	94,015	79,596	92,101	83,343	84,435	84,571	82,342	47,367	925,954	686,282
New England.....	3,817	2,282	2,692	3,918	2,453	5,689	4,718	5,780	7,307	3,275	3,401	2,547	1,257	55,468	32,853
Middle Atlantic.....	6,684	14,861	6,933	13,072	15,100	10,970	12,987	13,221	14,446	10,560	12,004	12,592	5,353	132,703	91,206
East North Central.....	8,205	10,330	11,498	11,907	23,614	20,923	15,725	17,174	17,903	14,660	15,419	10,146	8,001	177,322	118,839
West North Central.....	3,437	1,456	3,381	3,666	10,263	9,391	7,128	6,575	4,647	6,022	5,692	8,287	2,586	72,809	57,240
South Atlantic.....	8,965	7,343	8,125	9,261	8,789	10,954	10,426	13,501	10,360	11,924	13,498	9,118	8,170	121,571	106,788
East South Central.....	2,129	2,002	2,674	3,191	3,016	3,502	3,864	3,202	3,232	3,375	3,891	3,245	2,027	39,391	34,680
West South Central.....	9,888	5,354	6,804	10,684	8,342	17,793	7,076	12,324	8,120	13,455	10,441	10,917	8,062	126,054	91,548
Mountain.....	1,936	2,632	1,414	1,523	2,640	2,183	4,965	4,192	2,791	3,275	3,747	4,908	2,093	35,275	26,855
Pacific.....	12,451	9,007	10,007	9,695	10,688	12,610	12,707	16,132	14,567	17,889	16,478	20,492	9,818	165,361	126,273
Community buildings <sup>3</sup> .....	32,659	49,152	72,192	56,648	88,646	68,575	60,377	71,048	69,058	68,111	51,416	78,646	58,766	778,045	406,920
New England.....	487	1,505	1,651	1,741	5,822	1,580	4,137	3,827	9,502	3,603	4,255	3,477	1,465	47,004	25,759
Middle Atlantic.....	3,717	3,314	14,051	7,279	20,166	11,588	9,185	8,658	8,753	26,082	4,144	32,694	9,833	153,109	80,190
East North Central.....	5,323	11,145	13,035	11,143	16,675	11,429	13,394	21,795	15,246	10,354	14,190	8,795	10,988	149,667	62,542
West North Central.....	2,123	6,590	5,139	5,405	7,798	3,050	3,521	2,736	3,994	2,528	2,665	3,796	11,998	53,400	34,639
South Atlantic.....	2,452	5,605	4,476	5,326	8,523	8,003	5,538	11,420	6,567	2,886	4,761	9,623	3,341	78,034	40,172
East South Central.....	2,143	1,610	5,493	1,215	9,110	4,811	3,665	2,636	2,592	4,016	1,242	1,189	675	38,392	16,913
West South Central.....	9,805	10,099	8,873	11,577	3,531	4,735	4,617	10,736	8,876	8,105	7,359	6,826	10,591	102,937	65,369
Mountain.....	1,245	1,505	1,809	805	2,113	14,174	2,788	2,825	566	3,907	1,299	2,778	608	34,081	18,366
Pacific.....	5,365	7,779	17,675	12,157	14,908	9,205	13,532	6,415	12,962	6,630	11,501	9,468	3,267	121,361	63,030
Public buildings <sup>4</sup> .....	22,734	28,096	5,274	1,882	4,452	6,699	5,155	5,734	14,936	4,297	5,544	7,055	5,348	71,953	41,049
New England.....	138	20	300	9	453	166	100	54	613	91	121	455	1,250	5,901	3,418
Middle Atlantic.....	353	24,010	201	140	640	1,756	498	337	2,463	1,148	659	488	137	8,681	4,712
East North Central.....	50	184	158	136	15	15	3,385	3,700	1,276	101	286	849	568	11,173	8,372
West North Central.....	0	459	1,054	251	25	45	138	96	753	26	1,691	124	77	4,815	1,696
South Atlantic.....	22,027	1,159	1,234	431	633	1,441	47	914	1,449	91	648	394	349	7,661	6,285
East South Central.....	0	32	721	80	961	1,280	0	45	1,230	413	209	3,374	417	8,936	830
West South Central.....	8	674	364	211	121	782	260	286	1,467	333	203	496	566	6,112	4,579
Mountain.....	0	44	803	260	37	877	73	68	475	36	543	61	259	3,605	2,416
Pacific.....	158	1,514	439	364	1,567	337	654	234	5,210	2,058	1,184	814	1,725	15,069	8,741
Public works and utility buildings <sup>5</sup> .....	10,540	8,571	9,398	11,853	11,953	15,425	11,872	17,846	9,306	10,168	15,639	12,660	7,483	150,020	143,824
New England.....	729	145	1,584	371	456	273	291	1,736	530	119	581	309	75	11,439	15,085
Middle Atlantic.....	1,225	605	1,178	262	1,423	1,280	1,587	1,923	1,252	3,045	1,839	1,699	671	16,656	24,968
East North Central.....	2,420	2,157	1,339	2,148	2,274	9,801	3,584	3,279	2,549	1,094	2,692	2,919	2,481	35,809	35,972
West North Central.....	234	1,202	223	620	2,327	325	3,103	882	1,082	1,055	701	1,762	459	13,574	8,737
South Atlantic.....	1,383	2,265	787	893	779	1,946	388	7,845	3,051	2,572	1,556	592	670	22,204	19,046
East South Central.....	2,875	763	3	36	534	270	865	193	11	87	315	702	325	3,751	4,154
West South Central.....	383	596	1,044	2,240	2,241	579	413	1,494	322	699	2,099	688	208	12,811	7,647
Mountain.....	0	5	131	148	66	139	334	209	8	2	238	155	675	2,055	3,520
Pacific.....	1,292	833	3,109	5,135	1,853	812	1,307	285	501	1,525	5,618	3,834	2,019	31,721	24,695
All Other buildings <sup>6</sup> .....	5,581	4,739	6,516	9,977	12,303	12,289	13,014	11,909	14,617	13,727	12,834	10,383	5,636	128,970	112,512
New England.....	500	277	420	766	984	955	741	800	917	841	949	361	138	7,981	6,764
Middle Atlantic.....	816	858	940	1,154	1,566	1,612	1,550	1,519	1,526	1,702	1,440	1,197	658	15,265	13,412
East North Central.....	699	688	1,193	2,529	3,494	3,667	3,769	3,044	3,797	3,361	3,552	2,681	685	32,430	27,556
West North Central.....	218	245	552	800	1,388	1,265	1,179	1,171	1,156	1,540	1,3				

<sup>1</sup> Building for which permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits. Sums of components do not always equal totals exactly because of rounding.

<sup>2</sup> For scope and source of urban estimates, see table F-3, footnote 1.

<sup>3</sup> Revised.

<sup>4</sup> Preliminary.

<sup>5</sup> Includes factories, navy yards, army ordnance plants, bakeries, ice plants, industrial warehouses, and other buildings at the site of these and similar production plants.

<sup>6</sup> Includes amusement and recreation buildings, stores and other mercantile buildings, commercial garages, gasoline and service stations, etc.

TABLE F-5: Number and Construction Cost of New Permanent Nonfarm Dwelling Units Started, by Urban or Rural Location, and by Source of Funds<sup>1</sup>

Period	Number of new dwelling units started									Estimated construction cost (in thousands) <sup>2</sup>		
	All units			Privately financed			Publicly financed			Total	Privately financed	Publicly financed
	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm			
1925 <sup>3</sup>	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	\$4,475,000	\$4,475,000	0
1933 <sup>4</sup>	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	0
1941 <sup>5</sup>	706,100	434,300	271,800	619,500	359,500	250,000	86,600	64,800	21,800	2,825,895	2,530,765	\$295,130
1944 <sup>6</sup>	141,800	96,200	45,600	138,700	93,200	45,500	3,100	3,000	100	495,054	483,231	11,823
1946	670,500	403,700	266,800	662,500	395,700	266,800	8,000	8,000	0	3,769,767	3,713,776	55,991
1947	849,000	479,800	369,200	845,600	476,400	369,200	3,400	3,400	0	5,642,798	5,617,425	25,373
1948	931,300	524,600	406,700	913,500	510,000	403,500	17,800	14,600	3,200	7,199,161	7,028,980	170,181
1947: First quarter	138,100	81,000	57,100	137,000	79,900	57,100	1,100	1,100	0	808,263	800,592	7,671
January	39,300	24,200	15,100	38,200	23,100	15,100	1,100	1,100	0	223,577	215,906	7,671
February	42,800	25,000	17,800	42,800	25,000	17,800	0	0	0	244,425	244,425	0
March	56,000	31,800	24,200	56,000	31,800	24,200	0	0	0	340,261	340,261	0
Second quarter	217,200	119,100	98,100	217,000	118,900	98,100	200	200	0	1,361,677	1,360,477	1,200
April	67,100	37,600	29,500	67,100	37,600	29,500	0	0	0	418,451	418,451	0
May	72,900	39,300	33,600	72,900	39,300	33,600	0	0	0	452,236	452,236	0
June	77,200	42,200	35,000	77,000	42,000	35,000	200	200	0	490,990	489,790	1,200
Third quarter	261,200	142,200	119,000	260,700	141,700	119,000	500	500	0	1,774,150	1,770,475	3,675
July	81,100	44,500	36,600	81,100	44,500	36,600	0	0	0	539,333	539,333	0
August	86,300	47,400	38,900	86,100	47,200	38,900	200	200	0	589,470	587,742	1,728
September	93,800	50,300	43,500	93,500	50,000	43,500	300	300	0	645,347	643,400	1,947
Fourth quarter	232,500	137,500	95,000	230,900	135,900	95,000	1,600	1,600	0	1,698,708	1,685,881	12,827
October	94,000	53,200	40,800	93,500	52,700	40,800	500	500	0	678,687	675,197	3,490
November	79,700	48,000	31,700	78,900	47,200	31,700	800	800	0	584,731	578,324	6,407
December	58,800	36,300	22,500	58,500	36,000	22,500	300	300	0	435,290	432,360	2,930
1948: First quarter <sup>7</sup>	180,000	102,900	77,100	177,700	100,800	76,900	2,300	2,100	200	1,315,050	1,296,612	18,438
January	53,500	30,800	22,700	52,500	29,800	22,700	1,000	1,000	( <sup>8</sup> )	383,563	374,984	8,579
February	50,100	29,000	21,100	48,900	28,000	20,900	1,200	1,000	200	368,915	359,420	9,495
March	76,400	43,100	33,300	76,300	43,000	33,300	100	100	( <sup>8</sup> )	562,572	562,208	364
Second quarter <sup>7</sup>	297,600	166,100	131,500	293,900	164,600	129,300	3,700	1,500	2,200	2,286,758	2,252,961	33,797
April	99,500	55,000	44,500	98,100	54,600	43,500	1,400	400	1,000	748,848	736,186	12,662
May	100,300	56,700	43,600	99,200	56,100	43,100	1,100	600	500	769,093	758,635	10,458
June	97,800	54,400	43,400	96,600	53,900	42,700	1,200	500	700	768,817	758,140	10,677
Third quarter <sup>7</sup>	263,800	144,100	119,700	259,300	140,100	119,200	4,500	4,000	500	2,111,278	2,065,770	45,508
July	95,000	52,300	42,700	93,700	51,000	42,700	1,300	1,300	( <sup>8</sup> )	750,843	738,659	12,184
August	86,600	47,600	39,000	85,100	46,600	38,500	1,500	1,000	500	719,080	703,066	16,014
September	82,200	44,200	38,000	80,500	42,500	38,000	1,700	1,700	( <sup>8</sup> )	641,355	624,045	17,310
Fourth quarter <sup>7</sup>	189,900	111,500	78,400	182,600	104,500	78,100	7,300	7,000	300	1,486,075	1,413,637	72,438
October	73,400	41,300	32,100	71,900	39,800	32,100	1,500	1,500	( <sup>8</sup> )	573,888	560,347	13,541
November	63,600	38,000	25,600	61,300	35,800	25,500	2,300	2,200	100	498,040	471,336	26,704
December	52,900	32,200	20,700	49,400	28,900	20,500	3,500	3,300	200	414,147	381,954	32,193
1949: January <sup>9</sup>	50,000	( <sup>10</sup> )	( <sup>10</sup> )	46,000	( <sup>10</sup> )	( <sup>10</sup> )	4,000	( <sup>10</sup> )	( <sup>10</sup> )	361,082	326,712	34,370
February <sup>9</sup>	46,000	( <sup>10</sup> )	( <sup>10</sup> )	43,400	( <sup>10</sup> )	( <sup>10</sup> )	2,600	( <sup>10</sup> )	( <sup>10</sup> )	347,486	322,081	25,405

<sup>1</sup> The estimates shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing units.

These estimates are based on building-permit records, which, beginning with 1945, have been adjusted for lapsed permits and for lag between permit issuance and start of construction. They are based also on reports of Federal construction contract awards and beginning in 1946, on field surveys in non-permit-issuing places. The data in this table refer to nonfarm dwelling units started, and not to urban dwelling units authorized, as shown in table F-3.

All of these estimates contain some error. For example, if the estimate of nonfarm starts is 50,000, the chances are about 19 out of 20 that an actual enumeration would produce a figure between 48,000 and 52,000.

<sup>2</sup> Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

<sup>3</sup> Housing peak year.

<sup>4</sup> Depression, low year.

<sup>5</sup> Recovery peak year prior to wartime limitations.

<sup>6</sup> Last full year under wartime control.

<sup>7</sup> Revised.

<sup>8</sup> Less than 50 units.

<sup>9</sup> Preliminary.

<sup>10</sup> Not available.